

US EPA ARCHIVE DOCUMENT



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May 4, 2012

Mr. Kenneth Bardo - LU-9J  
U.S. EPA Region V  
Corrective Action Section  
77 West Jackson Boulevard  
Chicago, IL 60604-3507

VIA FEDEX

Re: PCB Groundwater Quality Assessment Program  
1<sup>st</sup> Quarter 2012 Data Report  
Solutia Inc., W. G. Krummrich Plant, Sauget, IL

Dear Mr. Bardo:

Enclosed please find the PCB Groundwater Quality Assessment Program 1<sup>st</sup> Quarter 2012 Data Report for Solutia Inc.'s W. G. Krummrich Plant, Sauget, IL.

If you have any questions or comments regarding this report, please contact me at (314) 674-3312 or gmrina@solutia.com

Sincerely,

A handwritten signature in blue ink, appearing to read "Gerald M. Rinaldi", is written over a faint, larger version of the same signature.

Gerald M. Rinaldi  
Manager, Remediation Services

Enclosure

cc: Distribution List

## **DISTRIBUTION LIST**

**PCB Groundwater Quality Assessment Program  
1<sup>st</sup> Quarter 2012 Data Report  
Solutia Inc., W. G. Krummrich Plant, Sauget, IL**

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**1<sup>ST</sup> QUARTER 2012  
DATA REPORT**

**PCB GROUNDWATER  
QUALITY ASSESSMENT PROGRAM**

**SOLUTIA INC.  
W.G. KRUMMRICH FACILITY  
SAUGET, ILLINOIS**

*Prepared for*  
Solutia Inc.  
575 Maryville Centre Drive  
St. Louis, Missouri 63141

April 2012



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## 1.0 INTRODUCTION

This report presents the results of the 1<sup>st</sup> Quarter 2012 (1Q12) sampling event performed at the Solutia Inc. (Solutia) W.G. Krummrich Facility located in Sauget, Illinois (Site). This sampling event was conducted in accordance with the Revised PCB Groundwater Quality Assessment Program Work Plan (Solutia 2009). The Site location map is presented in **Figure 1**.

The PCB Groundwater Quality Assessment Program well network consists of ten monitoring wells, as follows (**Figure 2**):

- Two source area wells, PMA-MW-4S and PMA-MW-4D, are screened in the Shallow Hydrogeologic Unit (SHU) (designated with an "S") and Deep Hydrogeologic Unit (DHU) (designated with a "D"), respectively.
- Three well clusters (PMA-MW-1S/M, PMA-MW-2S/M and PMA-MW-3S/M) are located down-gradient of the source area. These clusters include wells screened in the SHU and Middle Hydrogeologic Unit (MHU) (designated with an "M").
- Two individual wells designated PMA-MW-5M and PMA-MW-6D are located further down-gradient of the source area, with PMA-MW-5M screened in the MHU and PMA-MW-6D screened in the DHU.

Groundwater samples were collected from the ten monitoring wells during the 1Q12 sampling event.

Field sampling activities were conducted in accordance with the procedures outlined in the Revised PCB Groundwater Quality Assessment Program Work Plan, including the collection of appropriate quality assurance and quality control (QA/QC) samples. The following section summarizes the field investigative procedures.

## 2.0 FIELD PROCEDURES

URS Corporation (URS) conducted the 1Q12 PCB Groundwater Quality Assessment Program field activities on February 16 and 17, 2012.

**Groundwater Level Measurements** – An oil/water interface probe was used to measure depth to static groundwater levels, determine the presence of non-aqueous phase liquids (NAPL), and measure total depths in the PCB Groundwater Quality Assessment Program well network. Depth to groundwater measurements were collected from accessible existing wells (i.e., BSA-, CPA-, GM-, K-, PSMW- and PMA-series) and piezometer clusters (installed for the Sauget Area 2 RI/FS and WGK CA-750 Environmental Indicator projects) specified in the Revised PCB Groundwater Quality Assessment Program Work Plan.

Well gauging information for the 1Q12 event is presented in **Table 1**. As the middle and deep hydrogeologic units are the primary migration pathway for constituents present in groundwater at the WGK Facility, a groundwater potentiometric surface map based on water level data from wells screened in the MHU and DHU is presented as **Figure 3**.

**Groundwater Sampling** - Low-flow sampling techniques were used for groundwater sample collection. At each monitoring well, disposable, low-density polyethylene tubing was attached to a submersible pump, which was then lowered into the well to the middle of the screened interval. Monitoring wells were purged at a rate 300 and 375 mL/minute to minimize drawdown. If significant drawdown occurred, flow rates were reduced.

Drawdown was measured periodically throughout purging to ensure that it did not exceed 25% of the distance between the pump intake and the top of the screen. Once the flow rate and drawdown were stable, field measurements were collected approximately every three to five minutes. Purging of a well was considered complete when the following water quality parameters remained stable over three consecutive flow-thru cell volumes:

Parameter	Stabilization Guidelines
Dissolved Oxygen (DO)	+/- 10% or +/-0.2 mg/L, whichever is greatest
Oxidation-Reduction Potential (ORP)	+/- 20 mV
pH	+/- 0.2 units
Specific Conductivity	+/- 3%

Sampling commenced upon completion of purging. Prior to sample collection, the flow-thru cell was bypassed to allow for collection of uncompromised groundwater. Consistent with the work plan, samples were collected at a flow rate less than or equal to the rate at which stabilization was achieved.

Per the workplan, NAPL is to be sampled if present in a well. Because no wells had measurable NAPL, groundwater samples were collected at each well using the procedures described above.

Quality Assurance/Quality Control (QA/QC) samples consisting of analytical duplicates (AD) and equipment blanks (EB) were collected at a rate of 10% and matrix spike/matrix spike duplicates (MS/MSD) were collected at a rate of 5%, complying with the work plan. All samples were submitted to TestAmerica for PCB analysis.

Each sample was labeled immediately following collection. The sample identification system used for each sample involved the following nomenclature "PMA-MW#-MMYY-QAC" where:

- **PMA-MW#** – Monitoring Well Location (PCB Manufacturing Area (PMA)) and Number
- **MMYY** – Month and year of sampling quarter, e.g.: February (1<sup>st</sup> Quarter), 2012 (0212)

- **QAC** – denotes QA/QC samples (when applicable):
  - **EB** – equipment blank
  - **AD** – analytical duplicate
  - **MS or MSD** – Matrix Spike or Matrix Spike Duplicate

Upon collection and labeling, sample containers were immediately placed inside an iced cooler, packed in such a way as to help prevent breakage and maintain inside temperature at or below approximately 4°C. Field personnel recorded the project identification and number, sample description/location, required analysis, date and time of sample collection, type and matrix of sample, number of sample containers, analysis requested/comments, and sampler signature/date/time, with permanent ink on a chain-of-custody (COC). Coolers were sealed between the lid and sides with a custody seal, and then shipped to TestAmerica in Savannah, Georgia by means of overnight delivery service (FedEx). Field sampling data sheets are included in **Appendix A** and COC forms are included in **Appendix B**.

Field personnel and equipment were decontaminated to ensure the health and safety of those present, maintain sample integrity, and minimize movement of contamination between the work area and off-site locations. Equipment used on-site was decontaminated prior to beginning work, between sampling locations and/or uses, and prior to demobilizing from the site. Non-disposable purging and sampling equipment was decontaminated between each sample acquisition by washing with an Alconox<sup>®</sup> or equivalent detergent wash, a potable water rinse, and a distilled water rinse. Personnel and small equipment decontamination was performed at the sample locations. Disposable sampling equipment, such as gloves were collected and bagged on a daily basis and managed in accordance with Solutia procedures. Purge water was containerized and handled per Solutia procedures.

### 3.0 LABORATORY PROCEDURES

Samples were analyzed by TestAmerica for PCBs using Method 680. For presentation purposes in this report, results of the PCB isomer groups (e.g., monochlorobiphenyl, dichlorobiphenyl, etc.) are summed and presented as “total PCBs.” Laboratory results were provided in electronic and hard copy formats.

### 4.0 QUALITY ASSURANCE

Analytical data were reviewed for quality and completeness, as described in the Revised PCB Groundwater Quality Assessment Work Plan. Data qualifiers were added, as appropriate, and are included on the data tables and the laboratory report. The Quality Assurance report is included as **Appendix C**. The laboratory report along with data review and validation report are included in **Appendix D**.

A total of 13 samples (ten investigative groundwater samples, one field duplicate, one MS/MSD pair, and one equipment blank) were prepared and analyzed by TestAmerica for PCBs. Results for the various analyses were submitted as sample delivery group (SDG) KPM045. The samples contained in SDG KPM045 are listed below.

KPM045	
PMA-MW-1S-0212	PMA-MW-3M-0212
PMA-MW-1M-0212	PMA-MW-4S-0212
PMA-MW-2S-0212	PMA-MW-4D-0212
PMA-MW-2M-0212	PMA-MW-5M-0212
PMA-MW-2M-0212-AD	PMA-MW-6D-0212
PMA-MW-3S-0212	PMA-MW-6D-0212-EB

Evaluation of the analytical data followed procedures outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, (USEPA 2008) and the Revised PCB Groundwater Quality Assessment Work Plan (Solutia 2009). Based on the above mentioned criteria, results reported for the analyses performed were accepted for their intended use. Acceptable levels of accuracy and precision, based on LCS, surrogate and field duplicate data were achieved for these SDGs to meet the project objectives. Completeness, which is defined to be the percentage of analytical results which are judged to be valid, including estimated (J/UJ) data was 100 percent.

## 5.0 OBSERVATIONS

This section presents a brief summary of the groundwater analytical results from the 1Q12 PCB Groundwater Quality Assessment sampling event. A summary of the laboratory results is provided in **Table 2** and the entire laboratory data package is provided in **Appendix D**.

### Shallow Hydrogeologic Unit

During previous sampling events, measurable DNAPL has been periodically observed in the source area SHU monitoring well PMA-MW-4S. DNAPL was not detected in PMA-MW-4S by the oil/water interface probe during the 1Q12 event. As a result, a water sample was collected, and total PCBs were detected at a concentration of 906.3 µg/L. PCBs were detected in two of the three down-gradient PCB Groundwater Quality Assessment Program SHU monitoring wells (PMA-MW-1S and PMA-MW-3S) at concentrations of 0.34 µg/L and 1.12 µg/L, respectively. Such data indicate that PCBs in the SHU are attenuating to a certain extent over the 300 to 400 foot distance between PMA-MW-4S and the three downgradient monitoring wells. PCB sampling results for the SHU are presented on **Figure 4**.

### Middle/Deep Hydrogeologic Unit

Laboratory analytical results for monitoring well PMA-MW-4D, located in the Former PCB Manufacturing Area, indicated a total PCB concentration of 0.92 µg/L for the 1Q12 sampling event. PCBs were also detected in four of the five downgradient monitoring wells at concentrations of 0.3 µg/L (PMA-MW-1M), 3.5 µg/L and 3.7 µg/L (PMA-MW-2M and duplicate), 1.3 µg/L (PMA-MW-3M), and 0.19 µg/L (PMA-MW-6D). PCBs were not detected in PMA-MW-5M. **Figure 5** displays the 1Q12 PCB sampling results for the MHU/DHU.

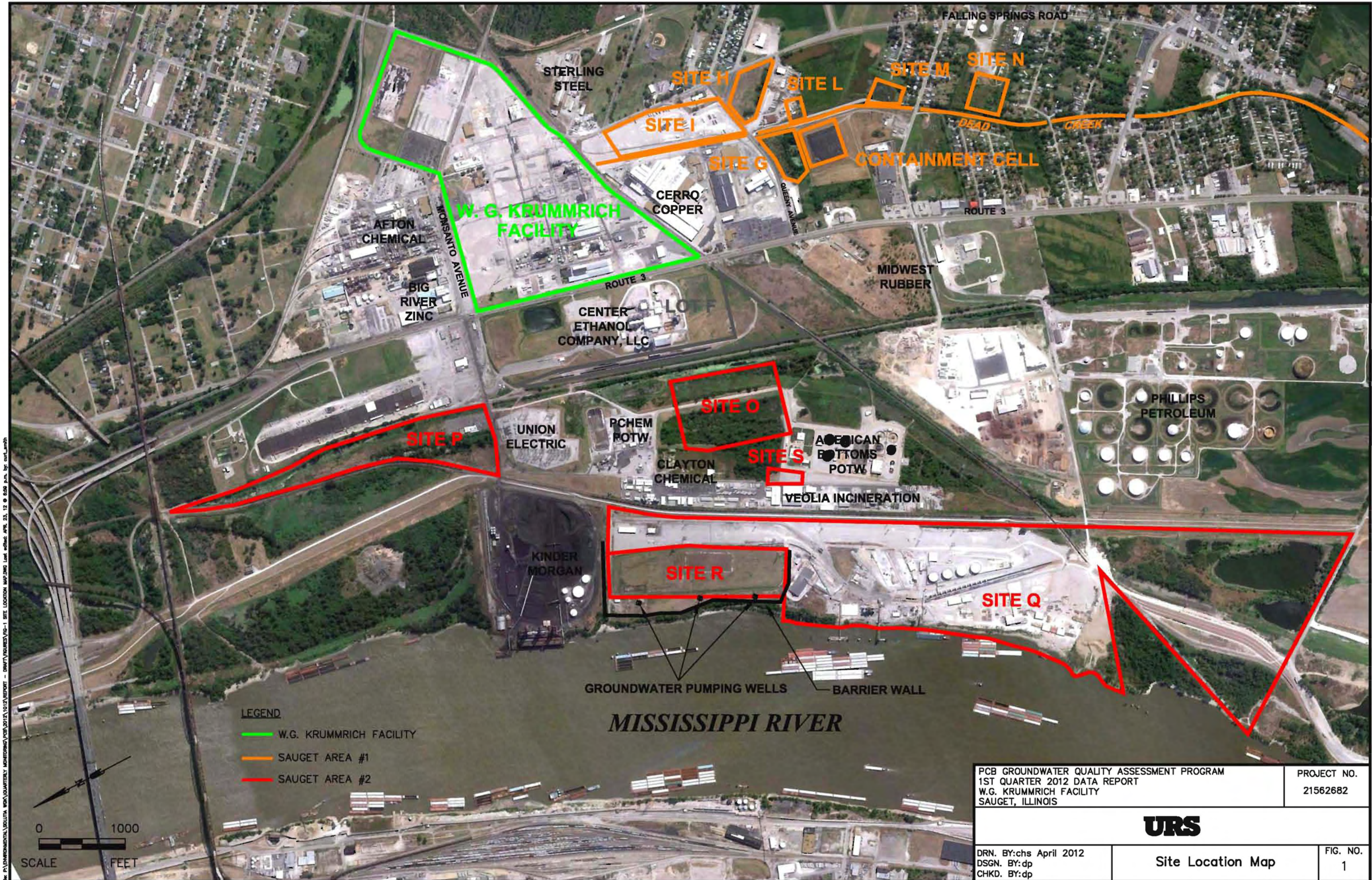
The 1Q12 sampling event was the fifteenth event conducted under the PCB Groundwater Quality Assessment Program. Mann-Kendall trend analyses of total PCBs in unfiltered samples of groundwater from selected monitoring wells within (PMA-MW-4D) or downgradient of (PMA-MW-1M, -2M, -3S, -3M, and -6D) the former PCB Manufacturing Area are presented in **Table 3**. Similar to previous quarterly events, the data appear to exhibit an upward trend in concentrations at monitoring wells PMA-MW-1M, PMA-MW-2M and PMA-MW-4D at this time; concentrations are stable or exhibit no trends at the other wells.

### 6.0 REFERENCES

- Solutia Inc, 2009. Revised PCB Groundwater Quality Assessment Program Work Plan, W.G. Krummrich Facility, Sauget, IL, Prepared by URS Corporation, May 2009.
- U.S. Environmental Protection Agency (USEPA), 2008 Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review.

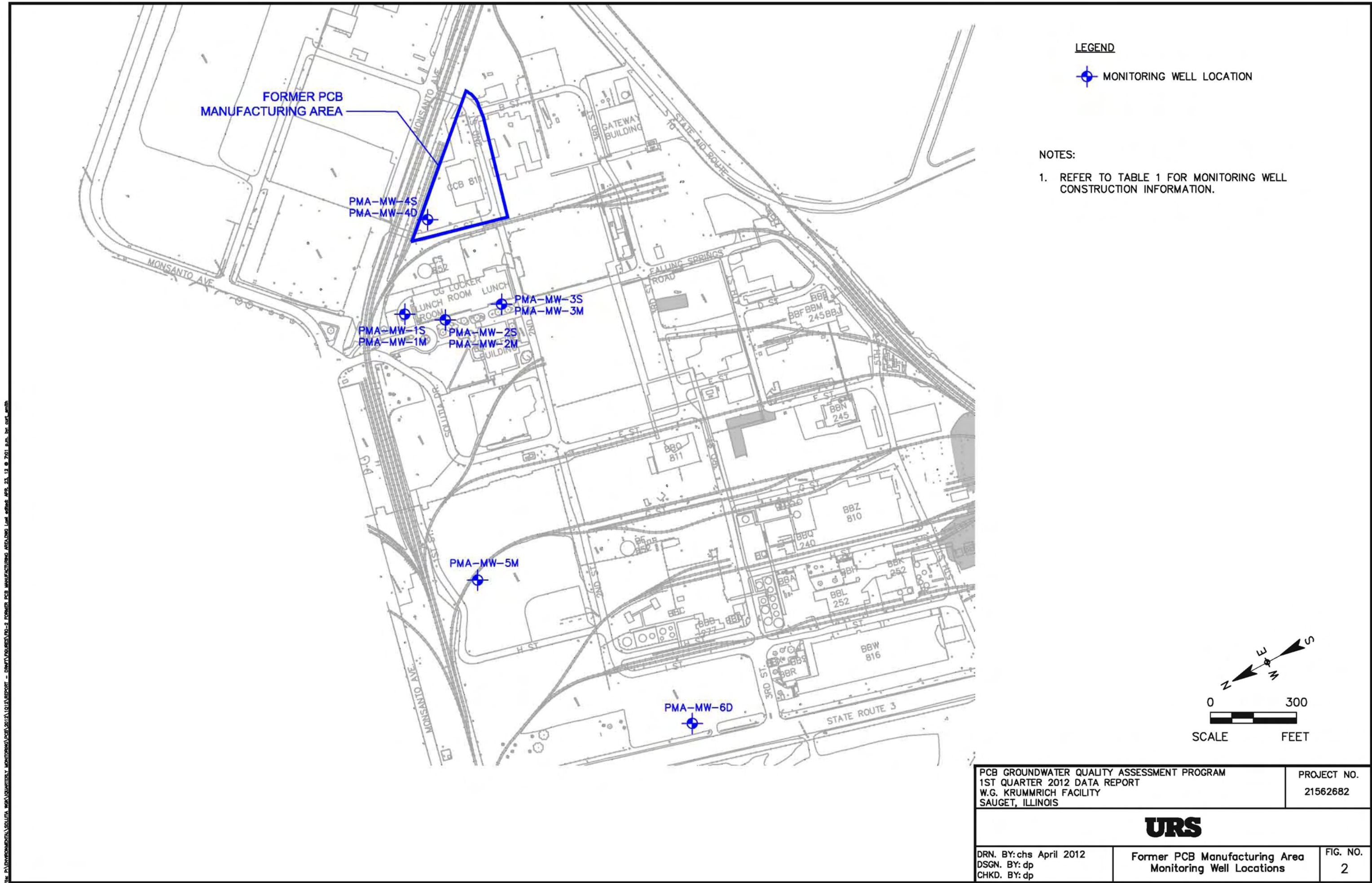
## Figures



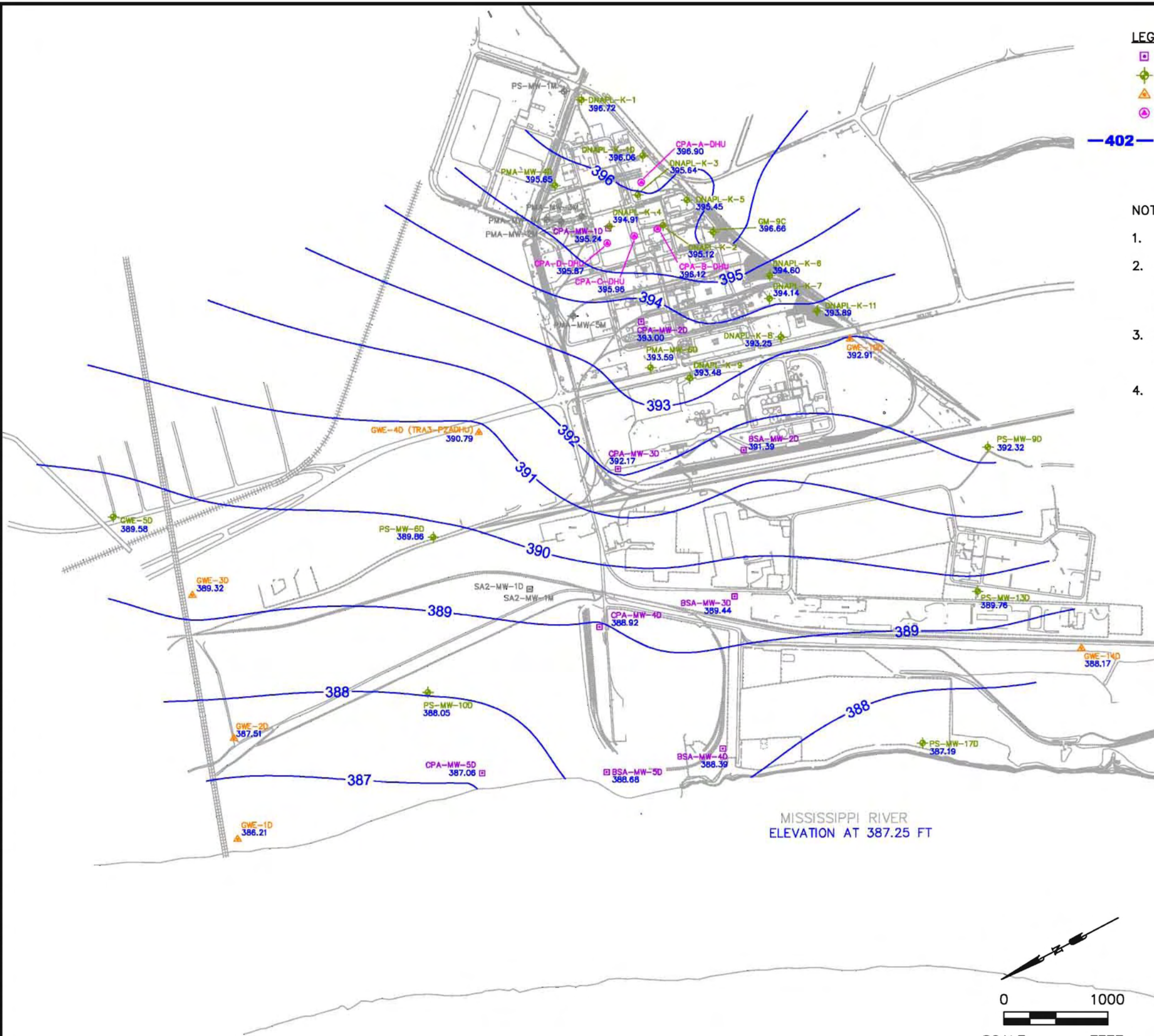




FILE: E:\ENVIRONMENTAL\SOILS\WQIA\QUARTERLY MONITORING\PCB\2012\1Q12\REPORT - DATA\FIGURES\Fig-2 FORMER PCB MANUFACTURING AREA.DWG (last edited: APR. 23, 12 @ 2:01 P.M. BY: cmt.smith)



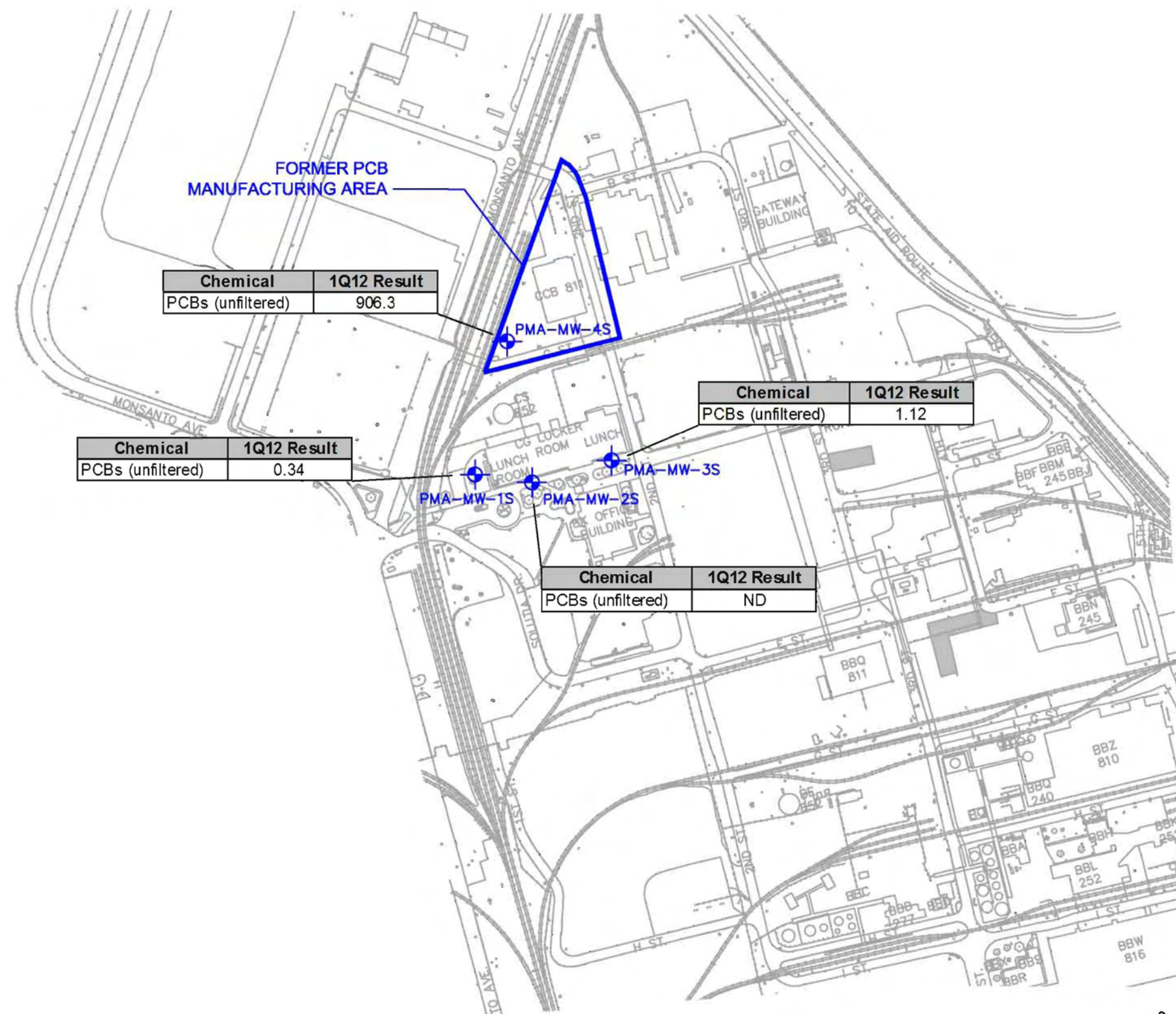




PCB GROUNDWATER QUALITY ASSESSMENT PROGRAM 1ST QUARTER 2012 DATA REPORT W.G. KRUMMRICH FACILITY SAUGET, ILLINOIS		PROJECT NO. 21562682
<b>URS</b>		
DRN. BY:chs April 2012 DSGN. BY:dp CHKD. BY:dp	Potentiometric Surface Map Middle/Deep Hydrogeologic Unit	FIG. NO. 3



File: P:\ENVIRONMENTAL\SOLUTIONS\WATER\GROUNDWATER\MONITORING\PCB\2012\1Q12\REPORT - DATA\TABLES\TABLE 4 - TOTAL PCBs SHU WELLS\NO. 4 - 12 - 2000.dwg, 23 APR 2012 12:00:00 PM, by: gnt, with:



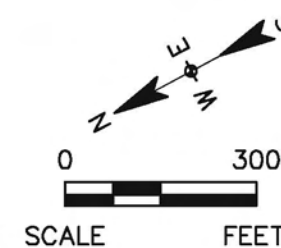
LEGEND



MONITORING WELL LOCATION

NOTES:

1. TOTAL PCB RESULTS INCLUDE THE SUM OF ALL METHOD 680 HOMOLOGS.
2. RESULTS ARE SHOWN IN ug/L.
3. ND = NOT DETECTED.



PCB GROUNDWATER QUALITY ASSESSMENT PROGRAM 1ST QUARTER 2012 DATA REPORT W.G. KRUMMRICH FACILITY SAUGET, ILLINOIS		PROJECT NO. 21562682
URS		
DRN. BY: chs April 2012 DSGN. BY: dp CHKD. BY: dp	PCB Results - SHU Wells	FIG. NO. 4

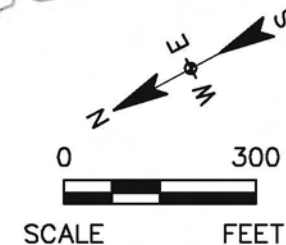
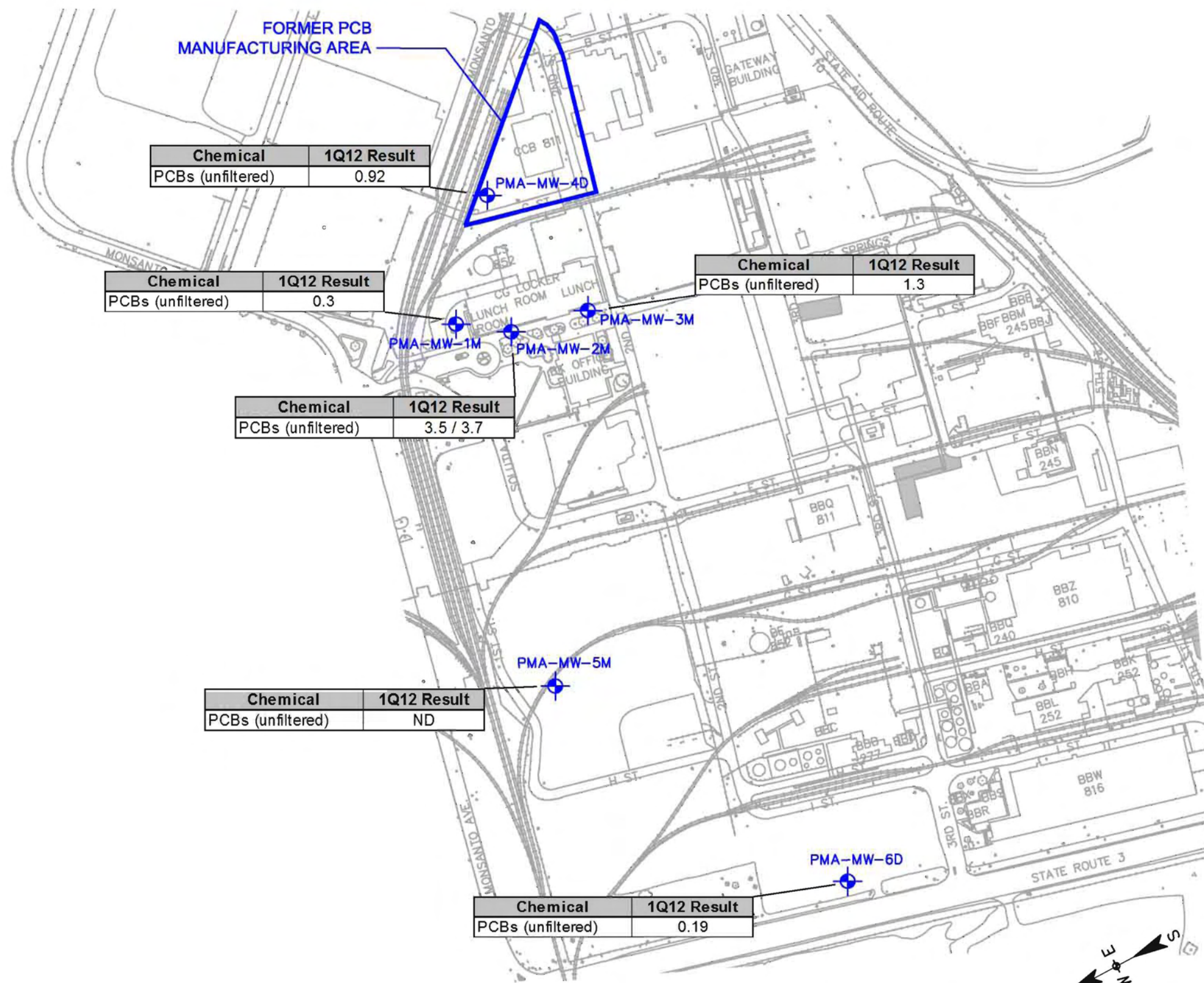


# LEGEND

 MONITORING WELL LOCATION

## NOTES:

1. TOTAL PCB RESULTS INCLUDE THE SUM OF ALL METHOD 680 HOMOLOGS.
2. RESULTS ARE SHOWN IN ug/L.
3. ND = NOT DETECTED.
4. MULTIPLE SAMPLE RESULTS INDICATE A DUPLICATE SAMPLE.



PCB GROUNDWATER QUALITY ASSESSMENT PROGRAM  
1ST QUARTER 2012 DATA REPORT  
W.G. KRUMMRICH FACILITY  
SAUGET, ILLINOIS

PROJECT NO.  
21562682

**URS**

DRN. BY:chs April 2012  
DSGN. BY:dp  
CHKD. BY:dp

PCB Results –  
MHU / DHU Wells

FIG. NO.  
5

## Tables

**Table 1**  
**Monitoring Well Gauging Information**

Well ID	Construction Details						February 9-10, 2012			
	Ground Elevation* (feet)	Casing Elevation* (feet)	Depth to Top of Screen (feet bgs)	Depth to Bottom of Screen (feet bgs)	Top of Screen Elevation* (feet)	Bottom of Screen Elevation* (feet)	Depth to Water (feet btoc)	NAPL Thickness (feet)	Depth to Bottom (feet btoc)	Water Elevation* (feet)
<b>Shallow Hydrogeologic Unit (SHU 395-380 feet NAVD 88)</b>										
PMA-MW-1S	410.30	410.06	20.18	25.18	390.12	385.12	14.41	--	25.02	395.65
PMA-MW-2S	412.27	411.66	22.94	27.94	389.33	384.33	16.55	--	27.43	395.11
PMA-MW-3S	412.37	412.06	22.71	27.71	389.66	384.66	16.70	--	27.40	395.36
PMA-MW-4S	411.09	410.43	20.99	25.99	390.10	385.10	14.66	--	25.45	395.77
<b>Middle Hydrogeologic Unit (MHU 380-350 feet NAVD 88)</b>										
PMA-MW-1M	410.32	410.08	54.54	59.54	355.78	350.78	14.90	--	59.61	395.18
PMA-MW-2M	412.26	411.93	56.87	61.87	355.39	350.39	17.72	--	61.26	394.21
PMA-MW-3M	412.36	412.10	57.07	62.07	355.29	350.29	16.77	--	61.81	395.33
PMA-MW-5M	411.27	410.97	52.17	57.17	359.10	354.10	16.45	--	56.99	394.52
PS-MW-1M	409.37	412.59	37.78	42.78	371.59	366.59	15.75	--	46.06	396.84
<b>Deep Hydrogeologic Unit (DHU 350 feet NAVD 88 - Bedrock)</b>										
BSA-MW-2D	412.00	415.13	68.92	73.92	343.08	338.08	23.74	--	77.04	391.39
BSA-MW-3D	412.91	415.74	107.02	112.02	305.89	300.89	26.30	--	114.80	389.44
BSA-MW-4D	425.00	424.69	118.54	123.54	306.46	301.46	36.30	--	123.22	388.39
BSA-MW-5D	420.80	420.49	115.85	120.85	304.95	299.95	31.81	--	120.55	388.68
CPA-MW-1D	408.62	412.23	66.12	71.12	342.50	337.50	16.99	--	74.68	395.24
CPA-MW-2D	408.51	408.20	99.96	104.96	308.55	303.55	15.20	--	104.65	393.00
CPA-MW-3D	410.87	410.67	108.20	113.20	302.67	297.67	18.50	--	114.80	392.17
CPA-MW-4D	421.57	421.20	116.44	121.44	305.13	300.13	32.28	--	120.99	388.92
CPA-MW-5D	411.03	413.15	107.63	112.63	303.40	298.40	26.09	--	114.65	387.06
DNAPL-K-1	413.07	415.56	108.20	123.20	304.87	289.87	18.84	--	123.15	396.72
DNAPL-K-2	407.94	407.72	97.63	112.63	310.31	295.31	12.60	--	112.35	395.12
DNAPL-K-3	412.13	415.91	104.80	119.80	307.33	292.33	20.27	--	123.28	395.64
DNAPL-K-4	409.48	412.53	102.55	117.55	306.93	291.93	17.62	--	118.91	394.91
DNAPL-K-5	412.27	411.91	102.15	117.15	310.12	295.12	16.46	--	116.50	395.45
DNAPL-K-6	410.43	410.09	102.47	117.47	307.96	292.96	15.49	--	116.90	394.60
DNAPL-K-7	408.32	407.72	100.40	115.40	307.92	292.92	13.58	--	115.43	394.14
DNAPL-K-8	408.56	411.38	102.65	117.65	305.91	290.91	18.13	--	117.57	393.25

**Table 1**  
**Monitoring Well Gauging Information**

Well ID	Construction Details						February 9-10, 2012			
	Ground Elevation* (feet)	Casing Elevation* (feet)	Depth to Top of Screen (feet bgs)	Depth to Bottom of Screen (feet bgs)	Top of Screen Elevation* (feet)	Bottom of Screen Elevation* (feet)	Depth to Water (feet btoc)	NAPL Thickness (feet)	Depth to Bottom (feet btoc)	Water Elevation* (feet)
<b>Deep Hydrogeologic Unit (DHU 350 feet NAVD 88 - Bedrock) (continued)</b>										
DNAPL-K-9	406.45	405.97	97.42	112.42	309.03	294.03	12.49	--	111.21	393.48
DNAPL-K-10	413.50	413.25	105.43	120.43	308.07	293.07	17.19	--	120.20	396.06
DNAPL-K-11	412.20	411.78	105.46	120.46	306.74	291.74	17.89	--	120.20	393.89
GM-9C	409.54	411.21	88.00	108.00	321.54	301.54	14.55	--	23.22	396.66
GWE-1D	412.80	415.60	117.00	127.00	295.80	285.80	29.39	--	128.51	386.21
GWE-2D	417.45	417.14	127.00	137.00	290.45	280.45	29.63	--	137.26	387.51
GWE-3D	415.03	417.66	104.60	114.60	313.06	303.06	28.34	--	114.98	389.32
GWE-4D	406.05	405.74	74.00	80.00	332.05	326.05	14.95	--	78.78	390.79
GWE-5D	408.79	408.38	100.43	105.43	308.36	303.36	18.80	--	105.31	389.58
GWE-10D	410.15	412.87	102.50	112.50	307.65	297.65	19.96	--	114.88	392.91
GWE-14D	420.47	422.90	90.00	96.00	330.47	324.47	34.73	--	97.09	388.17
PMA-MW-4D	411.22	410.88	68.84	73.84	342.38	337.38	15.23	--	73.33	395.65
PMA-MW-6D	407.63	407.32	96.49	101.49	311.14	306.14	13.73	--	101.30	393.59
PS-MW-6	404.11	406.63	102.32	107.32	304.31	299.31	16.77	--	109.81	389.86
PS-MW-9D	403.92	403.52	100.40	105.40	303.52	298.52	11.20	--	105.15	392.32
PS-MW-10	409.63	412.18	103.78	108.78	308.40	303.40	24.13	--	111.28	388.05
PS-MW-13D	405.80	405.53	106.08	111.08	299.72	294.72	15.77	--	110.65	389.76
PS-MW-17D	420.22	423.26	121.25	126.25	298.97	293.97	36.07	--	135.90	387.19

Notes:

\* - Elevation based upon North American Vertical Datum (NAVD) 88 datum

bgs - below ground surface

btoc - below top of casing



**Table 2**  
**Groundwater Analytical Results**

Sample ID	Sample Date	Units	Monochlorobiphenyl	Dichlorobiphenyl	Trichlorobiphenyl	Tetrachlorobiphenyl	Pentachlorobiphenyl	Hexachlorobiphenyl	Heptachlorobiphenyl	Octachlorobiphenyl	Nonachlorobiphenyl	Decachlorobiphenyl
<b>Shallow Hydrogeologic Unit</b>												
PMA-MW-1S-0212	2/16/2012	µg/L	<0.095	<0.095	<0.095	<0.19	<0.19	<b>0.34</b>	<0.29	<0.29	<0.48	<0.48
PMA-MW-2S-0212	2/16/2012	µg/L	<0.096	<0.096	<0.096	<0.19	<0.19	<0.19	<0.29	<0.29	<0.48	<0.48
PMA-MW-3S-0212	2/17/2012	µg/L	<b>0.72</b>	<b>0.25</b>	<b>0.15</b>	<0.19	<0.19	<0.19	<0.29	<0.29	<0.48	<0.48
PMA-MW-4S-0212	2/16/2012	µg/L	<b>2.3</b>	<b>15</b>	<b>71</b>	<b>150</b>	<b>140</b>	<b>250</b>	<b>230</b>	<b>38</b>	<b>10 J</b>	<4.7
<b>Middle/Deep Hydrogeologic Unit</b>												
PMA-MW-1M-0212	2/16/2012	µg/L	<b>0.3</b>	<0.096	<0.096	<0.19	<0.19	<0.19	<0.29	<0.29	<0.48	<0.48
PMA-MW-2M-0212	2/16/2012	µg/L	<b>3.5</b>	<0.096	<0.096	<0.19	<0.19	<0.19	<0.29	<0.29	<0.48	<0.48
PMA-MW-2M-0212-AD	2/16/2012	µg/L	<b>3.7</b>	<0.095	<0.095	<0.19	<0.19	<0.19	<0.29	<0.29	<0.48	<0.48
PMA-MW-3M-0212	2/17/2012	µg/L	<b>1.3</b>	<0.095	<0.095	<0.19	<0.19	<0.19	<0.28	<0.28	<0.47	<0.47
PMA-MW-4D-0212	2/16/2012	µg/L	<b>0.4</b>	<b>0.52</b>	<0.095	<0.19	<0.19	<0.19	<0.28	<0.28	<0.47	<0.47
PMA-MW-5M-0212	2/16/2012	µg/L	<0.095	<0.095	<0.095	<0.19	<0.19	<0.19	<0.29	<0.29	<0.48	<0.48
PMA-MW-6D-0212	2/16/2012	µg/L	<b>0.19</b>	<0.096	<0.096	<0.19	<0.19	<0.19	<0.29	<0.29	<0.48	<0.48

## Notes:

µg/L = micrograms per liter

&lt; = Result is non-detect, less than the reporting limit

AD = Analytical Duplicate

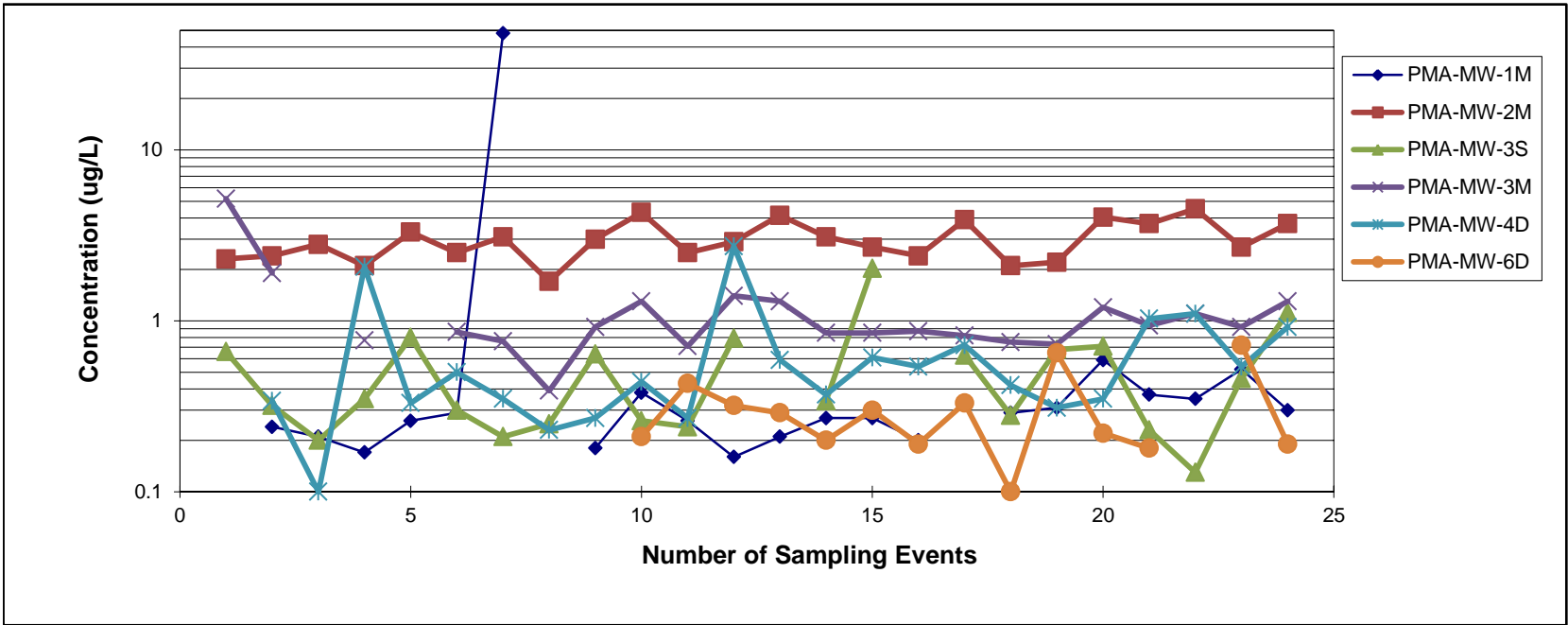
J = Estimated value

**BOLD** indicates concentration greater than the reporting limit



Table 3  
Mann-Kendall Trend Analysis

Sampling Event	Quarter	TOTAL PCBs CONCENTRATION (ug/L)					
		PMA-MW-1M	PMA-MW-2M	PMA-MW-3S	PMA-MW-3M	PMA-MW-4D	PMA-MW-6D
1	2Q06	ND	2.3	0.66	5.18	NA	NA
2	3Q06	0.24	2.4	0.32	1.9	0.34	NA
3	4Q06	0.21	2.8	0.2	ND	0.1	NA
4	1Q07	0.17	2.1	0.35	0.77	2.07	NA
5	2Q07	0.26	3.3	0.8	ND	0.33	NA
6	3Q07	0.29	2.5	0.3	0.86	0.5	NA
7	4Q07	48	3.1	0.21	0.76	0.35	NA
8	1Q08	ND	1.7	0.25	0.39	0.23	NA
9	2Q08	0.18	3	0.64	0.92	0.27	NA
10	3Q08	0.38	4.3	0.26	1.3	0.44	0.21
11	4Q08	0.26	2.5	0.24	0.71	0.27	0.43
12	1Q09	0.16	2.9	0.79	1.4	2.73	0.32
13	2Q09	0.21	4.14	ND	1.3	0.59	0.29
14	3Q09	0.27	3.1	0.34	0.85	0.37	0.2
15	4Q09	0.27	2.7	2.03	0.85	0.61	0.3
16	1Q10	0.2	2.4	ND	0.87	0.54	0.19
17	2Q10	ND	3.9	0.63	0.82	0.72	0.33
18	3Q10	0.29	2.1	0.28	0.75	0.42	0.1
19	4Q10	0.31	2.199	0.68	0.73	0.31	0.65
20	1Q11	0.59	4.04	0.71	1.2	0.35	0.22
21	2Q11	0.37	3.7	0.23	0.94	1.03	0.18
22	3Q11	0.35	4.52	0.13	1.1	1.1	ND
23	4Q11	0.52	2.7	0.46	0.92	0.54	0.72
24	1Q12	0.3	3.7	1.12	1.3	0.92	0.19
Coefficient of Variation:		4.06	0.26	0.80	0.81	0.93	0.58
Mann-Kendall Statistic (S):		78	66	21	-4	80	-10
Confidence in Trend:		99.1%	94.6%	71.1%	53.3%	98.2%	68.6%
Concentration Trend:		Increasing	Prob. Increasing	No Trend	Stable	Increasing	Stable



- Notes:
1. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0).  
> 90% = Probably Increasing or Decreasing; >95% = Increasing or Decreasing
  2. Values represent detected values. Values below the detection limit(s) are listed as non-detect (ND).
  3. NA = Not Analyzed

## **Appendix A**

### **Groundwater Purging and Sampling Forms**

**Troll 9000**

02/16/12

**Low-Flow System****ISI Low-Flow Log****Project Information:**

Operator Name dm Ir  
Company Name URS Corporation  
Project Name Solutia WGK  
Site Name Quarterly Groundwater Sampling - PCB

**Pump Information:**

Pump Model/Type Proactive SS Monsoon  
Tubing Type LDPE  
Tubing Diameter 0.19 [in]  
Tubing Length 28.44 [ft]  
Pump placement from TOC

**Well Information:**

Well Id PMA-MW-1S  
Well diameter 2 [in]  
Well total depth 24.94 [ft]  
Depth to top of screen 19.94 [ft]  
Screen length 60 [in]  
Depth to Water 14.85 [ft]

**Pumping information:**

Final pumping rate 300 [mL/min]  
Flowcell volume 758.57 [mL]  
Calculated Sample Rate 152 [sec]  
Sample rate 152 [sec]  
Stabilized drawdown

**Low-Flow Sampling Stabilization Summary**

	Time	Temp [F]	pH [pH]	Cond [µS/cm]	Turb [NTU]	RDO [mg/L]	ORP [mV]
<b>Stabilization Settings</b>			+/-0.2	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.2 +/-10 %	+/-20
Last 5 Readings	10:17:56	61.77	6.69	1258.81	1.15	0.74	-29.97
	10:20:29	61.82	6.68	1268.99	0.57	0.48	-30.52
	10:23:02	61.87	6.68	1276.76	0.67	0.32	-31.29
	10:25:36	61.96	6.67	1281.57	0.43	0.21	-31.80
	10:28:08	61.97	6.67	1282.41	0.15	0.15	-32.23
<b>Variance in last 3 readings</b>	10:23:02	0.05	0.00	7.77	0.10	-0.16	-0.77
	10:25:36	0.09	0.00	4.81	-0.24	-0.10	-0.51
	10:28:08	0.01	0.00	0.84	-0.27	-0.06	-0.43

**Notes:**

**Troll 9000**

02/16/12

**Low-Flow System****ISI Low-Flow Log****Project Information:**

Operator Name dm Ir  
Company Name URS Corporation  
Project Name Solutia WGK  
Site Name Quarterly Groundwater Sampling - PCB

**Pump Information:**

Pump Model/Type Proactive SS Monsoon  
Tubing Type LDPE  
Tubing Diameter 0.19 [in]  
Tubing Length 62.8 [ft]  
Pump placement from TOC

**Well Information:**

Well Id PMA-MW-1M  
Well diameter 2 [in]  
Well total depth 59.3 [ft]  
Depth to top of screen 54.3 [ft]  
Screen length 60 [in]  
Depth to Water 17.29 [ft]

**Pumping information:**

Final pumping rate 300 [mL/min]  
Flowcell volume 950.14 [mL]  
Calculated Sample Rate 191 [sec]  
Sample rate 191 [sec]  
Stabilized drawdown

**Low-Flow Sampling Stabilization Summary**

	Time	Temp [F]	pH [pH]	Cond [µS/cm]	Turb [NTU]	RDO [mg/L]	ORP [mV]
<b>Stabilization Settings</b>			+/-0.2	+/-0.1	+/-1	+/-0.2	+/-20
			+/-3 %	+/-10 %	+/-10 %		
Last 5 Readings	9:34:56	59.91	6.83	1649.84	6.88	0.06	-133.91
	9:38:09	59.98	6.83	1645.73	9.59	0.04	-135.19
	9:41:20	60.21	6.83	1661.32	2.44	0.04	-136.18
	9:44:32	60.34	6.83	1656.12	2.34	0.03	-137.16
	9:47:45	60.35	6.83	1671.84	6.49	0.01	-138.02
<b>Variance in last 3 readings</b>	9:41:20	0.22	0.00	15.59	-7.15	-0.01	-0.98
	9:44:32	0.13	0.00	-5.19	-0.10	-0.01	-0.98
	9:47:45	0.01	0.00	15.71	4.15	-0.01	-0.85

**Notes:**

**Troll 9000**

02/16/12

**Low-Flow System****ISI Low-Flow Log****Project Information:**

Operator Name dm Ir  
Company Name URS Corporation  
Project Name Solutia WGK  
Site Name Quarterly Groundwater Sampling - PCB

**Pump Information:**

Pump Model/Type Proactive SS Monsoon  
Tubing Type LDPE  
Tubing Diameter 0.19 [in]  
Tubing Length 30.83 [ft]  
Pump placement from TOC

**Well Information:**

Well Id PMA-MW-2S  
Well diameter 2 [in]  
Well total depth 27.33 [ft]  
Depth to top of screen 22.33 [ft]  
Screen length 60 [in]  
Depth to Water 16.98 [ft]

**Pumping information:**

Final pumping rate 300 [mL/min]  
Flowcell volume 771.89 [mL]  
Calculated Sample Rate 155 [sec]  
Sample rate 155 [sec]  
Stabilized drawdown

**Low-Flow Sampling Stabilization Summary**

		Time	Temp [F]	pH [pH]	Cond [µS/cm]	Turb [NTU]	RDO [mg/L]	ORP [mV]
<b>Stabilization Settings</b>				+/-0.2	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.2 +/-10 %	+/-20
Last 5 Readings		13:37:51	65.27	6.93	782.58	6.79	0.10	-51.32
		13:40:27	65.32	6.93	784.47	5.09	0.07	-51.96
		13:43:03	65.37	6.93	787.52	3.70	0.07	-52.35
		13:45:39	65.42	6.92	791.35	2.92	0.05	-52.95
		13:48:15	65.40	6.92	794.06	2.26	0.05	-53.34
<b>Variance in last 3 readings</b>		13:43:03	0.05	0.00	3.04	-1.39	-0.01	-0.39
		13:45:39	0.06	0.00	3.84	-0.78	-0.02	-0.60
		13:48:15	-0.02	0.00	2.71	-0.66	-0.01	-0.39

**Notes:**

**Troll 9000**

02/16/12

**Low-Flow System****ISI Low-Flow Log****Project Information:**

Operator Name dm Ir  
Company Name URS Corporation  
Project Name Solutia WGK  
Site Name Quarterly Groundwater Sampling - PCB

**Pump Information:**

Pump Model/Type Proactive SS Monsoon  
Tubing Type LDPE  
Tubing Diameter 0.19 [in]  
Tubing Length 65.04 [ft]  
Pump placement from TOC

**Well Information:**

Well Id PMA-MW-2M  
Well diameter 2 [in]  
Well total depth 61.54 [ft]  
Depth to top of screen 56.64 [ft]  
Screen length 60 [in]  
Depth to Water 17.13 [ft]

**Pumping information:**

Final pumping rate 300 [mL/min]  
Flowcell volume 962.63 [mL]  
Calculated Sample Rate 193 [sec]  
Sample rate 193 [sec]  
Stabilized drawdown

**Low-Flow Sampling Stabilization Summary**

		Time	Temp [F]	pH [pH]	Cond [µS/cm]	Turb [NTU]	RDO [mg/L]	ORP [mV]
<b>Stabilization Settings</b>				+/-0.2	+/-0.1	+/-1	+/-0.2	+/-20
					+/-3 %	+/-10 %	+/-10 %	
Last 5 Readings		12:46:41	63.09	7.45	1732.60	20.66	0.23	-121.64
		12:49:54	62.99	7.46	1743.88	12.64	0.06	-135.21
		12:53:09	63.01	7.46	1748.38	8.48	-0.01	-143.17
		12:56:23	63.07	7.47	1756.46	8.34	-0.03	-148.86
		12:59:37	63.31	7.47	1764.27	11.83	-0.05	-153.44
<b>Variance in last 3 readings</b>		12:53:09	0.02	0.00	4.50	-4.16	-0.06	-7.96
		12:56:23	0.06	0.00	8.08	-0.14	-0.03	-5.69
		12:59:37	0.24	0.01	7.81	3.49	-0.01	-4.58

**Notes:**

**Troll 9000**

02/17/12

**Low-Flow System****ISI Low-Flow Log****Project Information:**

Operator Name J Staetter  
Company Name URS Corporation  
Project Name Solutia WGK  
Site Name Quarterly Groundwater Sampling - PCB

**Pump Information:**

Pump Model/Type Proactive SS Monsoon  
Tubing Type LDPE  
Tubing Diameter 0.19 [in]  
Tubing Length 30.9 [ft]  
Pump placement from TOC

**Well Information:**

Well Id PMA-MW-3S  
Well diameter 2 [in]  
Well total depth 27.4 [ft]  
Depth to top of screen 22.4 [ft]  
Screen length 60 [in]  
Depth to Water 17.05 [ft]

**Pumping information:**

Final pumping rate 300 [mL/min]  
Flowcell volume 772.28 [mL]  
Calculated Sample Rate 155 [sec]  
Sample rate 155 [sec]  
Stabilized drawdown

**Low-Flow Sampling Stabilization Summary**

	Time	Temp [F]	pH [pH]	Cond [µS/cm]	Turb [NTU]	RDO [mg/L]	ORP [mV]
<b>Stabilization Settings</b>			+/-0.2	+/-0.1	+/-1	+/-0.2	+/-20
			+/-3 %	+/-10 %	+/-10 %		
Last 5 Readings	10:42:54	61.89	6.72	1903.40	41.54	0.26	217.29
	10:45:35	62.08	6.75	1899.02	22.78	0.24	210.80
	10:48:16	62.10	6.76	1894.92	18.18	0.23	205.42
	10:50:56	62.14	6.77	1894.90	11.61	0.21	200.68
	10:53:37	63.27	6.78	1907.32	5.75	0.18	195.69
<b>Variance in last 3 readings</b>	10:48:16	0.02	0.01	-4.10	-4.60	-0.01	-5.38
	10:50:56	0.04	0.01	-0.02	-6.57	-0.02	-4.74
	10:53:37	1.14	0.01	12.42	-5.86	-0.03	-5.00

**Notes:**

**Troll 9000**

02/17/12

**Low-Flow System****ISI Low-Flow Log****Project Information:**

Operator Name J Staetter  
Company Name URS Corporation  
Project Name Solutia WGK  
Site Name Quarterly Groundwater Sampling - PCB

**Pump Information:**

Pump Model/Type Proactive SS Monsoon  
Tubing Type LDPE  
Tubing Diameter 0.19 [in]  
Tubing Length 65.31 [ft]  
Pump placement from TOC

**Well Information:**

Well Id PMA-MW-3M  
Well diameter 2 [in]  
Well total depth 61.81 [ft]  
Depth to top of screen 56.81 [ft]  
Screen length 60 [in]  
Depth to Water 17.05 [ft]

**Pumping information:**

Final pumping rate 300 [mL/min]  
Flowcell volume 964.13 [mL]  
Calculated Sample Rate 193 [sec]  
Sample rate 193 [sec]  
Stabilized drawdown

**Low-Flow Sampling Stabilization Summary**

	Time	Temp [F]	pH [pH]	Cond [µS/cm]	Turb [NTU]	RDO [mg/L]	ORP [mV]
<b>Stabilization Settings</b>			+/-0.2	+/-0.1	+/-1	+/-0.2	+/-20
			+/-3 %	+/-3 %	+/-10 %	+/-10 %	
Last 5 Readings	11:17:42	61.19	8.69	1926.19	12.58	0.21	37.18
	11:21:02	61.47	8.72	1932.43	10.83	0.08	18.93
	11:24:22	61.72	8.75	1918.24	9.46	0.03	7.35
	11:27:42	62.18	8.76	1943.50	8.94	0.00	-2.57
	11:31:02	62.35	8.77	1957.45	8.92	-0.01	-11.50
<b>Variance in last 3 readings</b>	11:24:22	0.25	0.02	-14.19	-1.37	-0.05	-11.58
	11:27:42	0.46	0.02	25.26	-0.52	-0.03	-9.91
	11:31:02	0.18	0.01	13.95	-0.02	-0.01	-8.93

**Notes:**



**Troll 9000**

02/16/12

**Low-Flow System****ISI Low-Flow Log****Project Information:**

Operator Name M. Corbett  
Company Name URS Corporation  
Project Name Solutia WGK  
Site Name Quarterly Groundwater Sampling - PCB

**Pump Information:**

Pump Model/Type Proactive SS Monsoon  
Tubing Type LDPE  
Tubing Diameter 0.19 [in]  
Tubing Length 28.83 [ft]  
Pump placement from TOC

**Well Information:**

Well Id PMA-MW-4S  
Well diameter 2 [in]  
Well total depth 25.33 [ft]  
Depth to top of screen 20.33 [ft]  
Screen length 60 [in]  
Depth to Water 15.15 [ft]

**Pumping information:**

Final pumping rate 375 [mL/min]  
Flowcell volume 760.74 [mL]  
Calculated Sample Rate 122 [sec]  
Sample rate 122 [sec]  
Stabilized drawdown

**Low-Flow Sampling Stabilization Summary**

		Time	Temp [F]	pH [pH]	Cond [µS/cm]	Turb [NTU]	RDO [mg/L]	ORP [mV]
<b>Stabilization Settings</b>				+/-0.2	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.2 +/-10 %	+/-20
Last 5 Readings		14:25:51	63.90	6.71	2409.62	28.36	0.05	-52.27
		14:27:57	64.08	6.71	2399.08	24.90	0.04	-53.64
		14:30:04	64.27	6.71	2397.52	24.50	0.04	-54.79
		14:32:10	64.22	6.71	2401.20	24.72	0.03	-55.82
		14:34:16	64.44	6.70	2414.40	24.20	0.02	-56.63
<b>Variance in last 3 readings</b>		14:30:04	0.18	0.00	-1.57	-0.40	-0.01	-1.15
		14:32:10	-0.05	0.00	3.68	0.22	-0.01	-1.02
		14:34:16	0.22	-0.01	13.20	-0.52	-0.01	-0.81

**Notes:**

**Troll 9000**

02/16/12

**Low-Flow System****ISI Low-Flow Log****Project Information:**

Operator Name M. Corbett  
Company Name URS Corporation  
Project Name Solutia WGK  
Site Name Quarterly Groundwater Sampling - PCB

**Pump Information:**

Pump Model/Type Proactive SS Monsoon  
Tubing Type LDPE  
Tubing Diameter 0.19 [in]  
Tubing Length 76 [ft]  
Pump placement from TOC

**Well Information:**

Well Id PMA-MW-4D  
Well diameter 2 [in]  
Well total depth 73.5 [ft]  
Depth to top of screen 68.5 [ft]  
Screen length 60 [in]  
Depth to Water 15.62 [ft]

**Pumping information:**

Final pumping rate 350 [mL/min]  
Flowcell volume 1023.73 [mL]  
Calculated Sample Rate 176 [sec]  
Sample rate 176 [sec]  
Stabilized drawdown

**Low-Flow Sampling Stabilization Summary**

	Time	Temp [F]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	RDO [mg/L]	ORP [mV]
<b>Stabilization Settings</b>			+/-0.2	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.2 +/-10 %	+/-20
Last 5 Readings	13:37:30	62.35	6.82	1463.93	3.97	0.27	-47.22
	13:40:32	62.48	6.74	1491.77	5.36	0.13	-60.36
	13:43:34	62.56	6.72	1500.54	3.55	0.09	-68.70
	13:46:38	62.64	6.72	1498.07	2.76	0.06	-74.82
	13:49:39	62.49	6.72	1496.88	10.88	0.04	-79.45
<b>Variance in last 3 readings</b>	13:43:34	0.08	-0.02	8.77	-1.81	-0.05	-8.35
	13:46:38	0.08	0.00	-2.47	-0.79	-0.03	-6.12
	13:49:39	-0.16	0.00	-1.19	8.12	-0.02	-4.62

**Notes:**

**Troll 9000**

02/16/12

**Low-Flow System****ISI Low-Flow Log****Project Information:**

Operator Name M. Corbett  
Company Name URS Corporation  
Project Name Solutia WGK  
Site Name Quarterly Groundwater Sampling - PCB

**Pump Information:**

Pump Model/Type Proactive SS Monsoon  
Tubing Type LDPE  
Tubing Diameter 0.19 [in]  
Tubing Length 60.37 [ft]  
Pump placement from TOC

**Well Information:**

Well Id PMA-MW-5M  
Well diameter 2 [in]  
Well total depth 56.87 [ft]  
Depth to top of screen 51.87 [ft]  
Screen length 60 [in]  
Depth to Water 16.68 [ft]

**Pumping information:**

Final pumping rate 300 [mL/min]  
Flowcell volume 936.59 [mL]  
Calculated Sample Rate 188 [sec]  
Sample rate 188 [sec]  
Stabilized drawdown

**Low-Flow Sampling Stabilization Summary**

	Time	Temp [F]	pH [pH]	Cond [µS/cm]	Turb [NTU]	RDO [mg/L]	ORP [mV]
<b>Stabilization Settings</b>			+/-0.2	+/-0.1	+/-1	+/-0.2	+/-20
				+/-3 %	+/-10 %	+/-10 %	
Last 5 Readings	0:00:00	0.00	0.00	0.00	0.00	0.00	0.00
	10:25:14	61.86	7.05	2112.86	1.21	0.21	-27.74
	10:28:29	61.28	7.06	2119.95	0.90	0.15	-32.07
	10:31:43	61.19	7.06	2124.55	0.56	0.12	-34.81
	10:34:58	61.16	7.06	2124.97	0.28	0.11	-36.70
<b>Variance in last 3 readings</b>	10:28:29	-0.59	0.01	7.09	-0.31	-0.06	-4.33
	10:31:43	-0.08	0.00	4.60	-0.34	-0.02	-2.74
	10:34:58	-0.03	0.00	0.42	-0.27	-0.02	-1.89

**Notes:**

**Troll 9000**

02/16/12

**Low-Flow System****ISI Low-Flow Log****Project Information:**

Operator Name M. Corbett  
Company Name URS Corporation  
Project Name Solutia WGK  
Site Name Quarterly Groundwater Sampling - PCB

**Pump Information:**

Pump Model/Type Proactive SS Monsoon  
Tubing Type LDPE  
Tubing Diameter 0.19 [in]  
Tubing Length 104.68 [ft]  
Pump placement from TOC

**Well Information:**

Well Id PMA-MW-6D  
Well diameter 2 [in]  
Well total depth 101.18 [ft]  
Depth to top of screen 96.18 [ft]  
Screen length 60 [in]  
Depth to Water 13.93 [ft]

**Pumping information:**

Final pumping rate 300 [mL/min]  
Flowcell volume 1183.64 [mL]  
Calculated Sample Rate 237 [sec]  
Sample rate 237 [sec]  
Stabilized drawdown

**Low-Flow Sampling Stabilization Summary**

	Time	Temp [F]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	RDO [mg/L]	ORP [mV]
<b>Stabilization Settings</b>			+/-0.2	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.2 +/-10 %	+/-20
Last 5 Readings	9:29:09	61.69	6.82	966.47	20.39	0.24	-8.87
	9:33:15	61.34	6.84	965.84	14.22	0.21	-32.77
	9:37:20	61.18	6.86	964.01	4.98	0.16	-47.74
	9:41:26	61.33	6.88	965.81	3.01	0.14	-58.26
	9:45:32	61.37	6.89	964.60	2.17	0.12	-66.00
<b>Variance in last 3 readings</b>	9:37:20	-0.16	0.02	-1.83	-9.24	-0.04	-14.97
	9:41:26	0.16	0.02	1.80	-1.97	-0.02	-10.52
	9:45:32	0.04	0.01	-1.22	-0.84	-0.02	-7.74

**Notes:**

## **Appendix B**

### **Chains-of-Custody**

## Savannah

5102 LaRoche Avenue

Savannah, GA 31404

phone 912.354.7858 fax 912.352.0165

## Chain of Custody Record

TestAmerica  
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

<b>Client Contact</b>		<b>Project Manager: Dave Palmer</b>		<b>Site Contact: Michael Corbett</b>		<b>Date: 2/16/12</b>		<b>COC No:</b>	
URS Corporation		Tel/Fax: (314) 743-4154		Lab Contact: Lidya Gulizia		Carrier: <u>FEDEX</u>		1 of 1 COCs	
1001 Highlands Plaza Drive West, Suite 300		<b>Analysis Turnaround Time</b>						Job No.	
St. Louis, MO 63110		Calendar (C) or Work Days (W)						21562682.00006	
(314) 429-0100 Phone		TAT if different from Below						SDG No.	
(314) 429-0462 FAX		<input checked="" type="checkbox"/> 2 weeks							
Project Name: 1Q12 PCB GW Sampling		<input type="checkbox"/> 1 week							
Site: Solutia WG Krummrich Facility		<input type="checkbox"/> 2 days							
P O #		<input type="checkbox"/> 1 day							
<b>Sample Identification</b>		<b>Sample Date</b>	<b>Sample Time</b>	<b>Sample Type</b>	<b>Matrix</b>	<b># of Cont.</b>	<b>Filtered Sample</b>	<b>Total PCBs by 680</b>	<b>Sample Specific Notes:</b>
PMA-MW-6D-0212-EB	2/16/12	0815	G	Water	2	2			
PMA-MW-6D-0212		0950	G	Water	2	2			
PMA-MW-1M-0212		0950	G	Water	2	2			
PMA-MW-1S-0212		1035	G	Water	2	2			
PMA-MW-1S-0212-MS		1035	G	Water	2	2			
PMA-MW-1S-0212-MSD		1035	G	Water	2	2			
PMA-MW-5M-0212		1040	G	Water	2	2			
PMA-MW-2M-0212		1305	G	Water	2	2			
PMA-MW-2M-0212-AD		1305	G	Water	2	2			
PMA-MW-2S-0212		1355	G	Water	2	2			
PMA-MW-4D-0212		1350	G	Water	2	2			
PMA-MW-4S-0212	✓	1440	G	Water	2	2			
<b>Preservation Used: 1=Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6=Other</b>							1		
<b>Possible Hazard Identification</b>							<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b>		
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/>							<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		
<b>Special Instructions/QC Requirements &amp; Comments: Level 4 Data Package</b>									
680 - 77019 4.6" / 5.0" / 3.0"									
Relinquished by: <u>[Signature]</u>	Company: URS	Date/Time: 2/16/12 1545	Received by: <u>[Signature]</u>	Company: TA	Date/Time: 2/16/12 1545				
Relinquished by: <u>[Signature]</u>	Company: TA	Date/Time: 2/16/12 1545	Received by: <u>[Signature]</u>	Company: TA	Date/Time: 2/17/12 0924				
Relinquished by: <u>[Signature]</u>	Company: TA	Date/Time: 2/16/12 1545	Received by: <u>[Signature]</u>	Company: TA	Date/Time: 2/17/12 0924				

APR 20 2012

SEK

Savannah, GA 31404  
phone 912.354.7858 fax 912.352.0165

**TestAmerica**  
ON A MISSION OF PERFORMANCE TESTING

TestAmerica Laboratories, Inc.

[illegible]

APR 20 2012 *ΣΣ*

## **Appendix C**

### **Quality Assurance Report**



**QUALITY ASSURANCE REPORT**

Solutia Inc.  
W.G. Krummrich Facility  
Sauget, Illinois

PCB Groundwater Quality  
Assessment Program  
1<sup>st</sup> Quarter 2012 Data Report

*Prepared for*

Solutia Inc.  
575 Maryville Centre Drive  
St. Louis, MO 63141

April 2012



URS Corporation  
1001 Highland Plaza Drive West, Suite 300  
St. Louis, MO 63110  
(314) 429-0100  
**Project # 21562682**

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## 1.0 INTRODUCTION

This Quality Assurance Report presents the findings of a review of analytical data for groundwater samples collected in February of 2012 at the Solutia W.G. Krummrich plant as part of the 1<sup>st</sup> Quarter 2012 PCB Groundwater Quality Assessment Program. The samples were collected by URS Corporation personnel and analyzed by TestAmerica Laboratories located in Savannah, Georgia using USEPA methodologies. Samples were analyzed for polychlorinated biphenyls (PCBs).

One hundred percent of the data were subjected to a data quality review (Level III validation). The Level III data reviews were performed in order to confirm that the analytical data provided by TestAmerica were acceptable in quality for their intended use.

A total of 13 samples (ten investigative groundwater samples, one field duplicate, one matrix spike and matrix spike duplicate (MS/MSD) pair, and one equipment blank) were analyzed by TestAmerica. These samples were analyzed as part of Sample Delivery Group (SDG) KPM045 utilizing the following USEPA Method:

- Method 680 for PCBs

Samples were reviewed following procedures outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, (USEPA 2008) and the Revised PCB Groundwater Quality Assessment Work Plan, (Solutia 2009).

The above guidelines provided the criteria to review the data. Additional quantitative criteria are given in the analytical methods. Data was qualified based on the data quality review. Qualifiers assigned indicate data that did not meet acceptance criteria and for which corrective actions were not successful or not performed. The various qualifiers are explained in **Tables 1** and **2** on the following page:

**TABLE 1 Laboratory Data Qualifiers**

Lab Qualifier	Definition
U	Analyte was not detected at or above the reporting limit.
*	LCS, LCSD, MS, MSD, MD or surrogate exceeds the control limits.
E	Result exceeded the calibration range, secondary dilution required.
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution will be flagged with a D.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
N	MS, MSD: Spike recovery exceeds upper or lower control limits.
H	Sample was prepped or analyzed beyond the specified holding time.
B	Compound was found in the blank and sample.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

**TABLE 2 URS Data Qualifiers**

URS Qualifier	Definition
U	The analyte was analyzed for but was not detected.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Based on the criteria outlined, it is recommended that the results reported for these analyses are accepted for their intended use. Acceptable levels of accuracy, precision, and representativeness (based on MS/MSD, LCS, surrogate compounds and field duplicate results) were achieved for this data set, except where noted in this report. In addition, analytical completeness, defined to be the percentage of analytical results which are judged to be valid, including estimated detect/nondetect (J/UJ) values was 100 percent, which meets the completeness goal of 95 percent.

The data review included evaluation of the following criteria:

### Organics

- Receipt condition and sample holding times
- Laboratory method blanks, and field equipment blank samples
- Surrogate spike recoveries
- Laboratory control sample (LCS) recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) sample recoveries and Relative Percent Difference (RPD) values
- Field duplicate results
- Results reported from dilutions
- Internal standard responses

## 2.0 RECEIPT CONDITION AND SAMPLE HOLDING TIMES

Sample holding time requirements for the analyses performed are presented in the methods and/or in the data review guidelines. The laboratory report was revised and re-issued on April 20, 2012 to include a page of the COC that had not been included with the original report. Review of the sample collection, extraction and analysis dates involved comparing the chain-of-custody and the laboratory data summary forms for accuracy, consistency, and holding time compliance. Although the cooler receipt form indicated insufficient sample volume was received for MS/MSD analysis, sample PMA-MW-1S-0212 contained sufficient sample volume to complete the requested MS/MSD analyses.

## 3.0 LABORATORY METHOD BLANK AND EQUIPMENT BLANK SAMPLES

Laboratory method blank samples evaluate the existence and magnitude of contamination problems resulting from laboratory activities. All laboratory method blank samples were analyzed at the method prescribed frequencies. No analytes were detected in the method blanks.

Equipment blank samples are used to assess the effectiveness of equipment decontamination procedures. No analytes were detected in the equipment blank sample.

## 4.0 SURROGATE SPIKE RECOVERIES

Surrogate compounds are used to evaluate overall laboratory performance for sample preparation efficiency on a per sample basis. All samples analyzed for PCBs were spiked with surrogate compounds during sample preparation. USEPA National Functional Guidelines for

Superfund Organic Methods Data Review state how data is qualified, if surrogate spike recoveries do not meet evaluation criteria. Surrogate recoveries were within evaluation criteria. Surrogates that were associated with quality control samples or were diluted out and not recovered did not require qualification. No qualification of data was required.

## 5.0 LABORATORY CONTROL SAMPLE RECOVERIES

Laboratory control samples (LCS) are analyzed with each analytical batch to assess the accuracy of the analytical process. All LCS recoveries were within evaluation criteria with the exception summarized in the table below.

LCS ID	Parameter	Analyte	LCS Recovery	LCS Criteria
680-229697/14-A	PCBs	Nonachlorobiphenyl	117	26-115

Analytical data that required qualification based on LCS data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification.

Sample ID	Parameter	Analyte	Qualification
PMA-MW-4S-0212	PCBs	Nonachlorobiphenyl	J

## 6.0 MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) SAMPLES

MS/MSD samples are analyzed to assess the accuracy and precision of the analytical process on an analytical sample in a particular matrix. MS/MSD samples were required to be collected at a frequency of one per 20 investigative samples in accordance with the work plan. URS Corporation submitted one MS/MSD sample set for ten investigative samples, meeting the work plan frequency requirement.

Sample PMA-MW-1S-0212 was spiked and analyzed as MS/MSDs and their respective recoveries were within evaluation criteria. No qualification of data was required.

## 7.0 FIELD DUPLICATE RESULTS

Field duplicate results are used to evaluate precision of the entire data collection activity, including sampling, analysis and site heterogeneity. When results for both duplicate and sample values are greater than five times the practical quantitation limit (PQL), satisfactory precision is indicated by an RPD less than or equal to 25 percent for aqueous samples. Where one or both of the results of a field duplicate pair are reported at less than five times the PQL, satisfactory precision is indicated if the field duplicate results agree within 2 times the quantitation limit. Field duplicate results that do not meet these criteria may indicate unsatisfactory precision of the results.

One field duplicate sample was collected for the ten investigative samples. This satisfies the requirement in the work plan (one per 10 investigative samples or 10 percent). Field duplicate results were within evaluation criteria. No qualification of data was required

## **8.0 INTERNAL STANDARD RESPONSES**

Internal standard (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during each analytical run. For the PCBs (Method 680), the IS areas must be within +/- 30 percent of the preceding calibration verification (CV) IS value. Also, the IS retention times must be within 30 seconds of the preceding IS CV retention time. If the IS area count is outside criteria, Method 680 indicates the mean IS area obtained during the initial calibration (ICAL) (+/- 50 percent) should be used.

The internal standards area responses for PCBs were verified for the data review. IS responses met the criteria as described above.

## **9.0 RESULTS REPORTED FROM DILUTIONS**

Sample PMA-MW-4S-0212 was diluted due to high levels of PCBs in the sample. The diluted sample results for PCBs were reported at the lowest possible reporting limits.

**Appendix D**  
**Groundwater Analytical Results**  
**(with Data Review Reports)**



## 1Q 2012 PCB Data Review

Laboratory SDG: KPM045

Data Reviewer: Elizabeth Kunkel

Peer Reviewer: Tony Sedlacek

Date Reviewed: 4/20/2012

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Work Plan: Revised PCB Groundwater Quality Assessment (Solutia 2009)

Sample Identification	
PMA-MW-6D-0212-EB	PMA-MW-6D-0212
PMA-MW-1M-0212	PMA-MW-1S-0212
PMA-MW-5M-0212	PMA-MW-2M-0212
PMA-MW-2M-0212-AD	PMA-MW-2S-0212
PMA-MW-4D-0212	PMA-MW-4S-0212
PMA-MW-3S-0212	PMA-MW-3M-0212

### 1.0 Data Package Completeness

*Were all items delivered as specified in the QAPP and COC as appropriate?*

Yes

### 2.0 Laboratory Case Narrative \ Cooler Receipt Form

*Were problems noted in the laboratory case narrative or cooler receipt form?*

Yes, the laboratory case narrative indicated that the PCB LCS recovery for nonachlorobiphenyl was outside evaluation criteria. Sample PMA-MW-4S-0212 was diluted due to high levels of target analytes. These issues are addressed further in the appropriate sections below.

Although the cooler receipt form indicated insufficient sample volume was received for MS/MSD analysis, sample PMA-MW-1S-0212 contained sufficient sample volume to complete the requested MS/MSD analyses. The laboratory report was revised and re-issued on April 20, 2012 to include a page of the COC that had not been included with the original report.

### 3.0 Holding Times

*Were samples extracted/analyzed within applicable limits?*

Yes

### 4.0 Blank Contamination

*Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?*

No

### 5.0 Laboratory Control Sample

*Were LCS recoveries within evaluation criteria?*

No

LCS ID	Parameter	Analyte	LCS Recovery	LCS Criteria
680-229697/14-A	PCBs	Nonachlorobiphenyl	117	26-115

Analytical data that required qualification based on LCS data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification.

Sample ID	Parameter	Analyte	Qualification
PMA-MW-4S-0212	PCBs	Nonachlorobiphenyl	J

## 6.0 Surrogate Recoveries

*Were surrogate recoveries within evaluation criteria?*

Yes

## 7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

*Were MS/MSD samples collected as part of this SDG?*

Yes, sample PMA-MW-1S-0212 was spiked and analyzed for PCBs.

*Were MS/MSD recoveries within evaluation criteria?*

Yes

## 8.0 Internal Standard (IS) Recoveries

*Were internal standard area recoveries within evaluation criteria?*

Yes

## 9.0 Laboratory Duplicate Results

*Were laboratory duplicate samples performed as part of this SDG?*

No

## 10.0 Field Duplicate Results

*Were field duplicate samples collected as part of this SDG?*

Yes

Sample ID	Field Duplicate ID
PMA-MW-2M-0212	PMA-MW-2M-0212-AD

*Were field duplicates within evaluation criteria?*

Yes

**11.0 Sample Dilutions**

*For samples that were diluted and nondetect, were undiluted results also reported?*

Not applicable; analytes were detected in samples that were diluted.

**12.0 Additional Qualifications**

*Were additional qualifications applied?*

No

## **SDG KPM045**

### **Results of Samples from Monitoring Wells:**

**PMA-MW-1S  
PMA-MW-1M  
PMA-MW-2S  
PMA-MW-2M  
PMA-MW-3S  
PMA-MW-3M  
PMA-MW-4S  
PMA-MW-4D  
PMA-MW-5M  
PMA-MW-6D**

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Tel: (912)354-7858

TestAmerica Job ID: 680-77019-1

TestAmerica Sample Delivery Group: KPM045

Client Project/Site: WGK PCB GW - 1Q12 - Feb 2012

Revision: 1

For:

Solutia Inc.

575 Maryville Centre Dr.

Saint Louis, Missouri 63141

Attn: Mr. Jerry Rinaldi



Authorized for release by:

4/20/2012 9:55:46 AM

Lidya Gulizia

Project Manager II

lidya.gulizia@testamericainc.com

cc: Bob Billman

### LINKS

Review your project  
results through

Total Access

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

Reviewed  
on  
4/20/2012  
ERK

The test results in this report meet all 2003 NELAP and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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APR 20 2012  
ERK

## Case Narrative

Client: Solutia Inc.  
Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

Job ID: 680-77019-1

Laboratory: TestAmerica Savannah

Narrative

### CASE NARRATIVE

Client: Solutia Inc.

Project: WGK PCB GW - 1Q12 - Feb 2012

Report Number: 680-77019-1 / Revised

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

The report was revised on April 20, 2012 to include the COC for samples from log-in 680-77050 reported in job 680-77019.

#### RECEIPT

The samples were received on 02/17/2012 and 02/18/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.6 C.

#### POLYCHLORINATED BIPHENYLS (PCBS)

Samples PMA-MW-6D-0212-EB (680-77019-1), PMA-MW-6D-0212 (680-77019-2), PMA-MW-1M-0212 (680-77019-3), PMA-MW-1S-0212 (680-77019-4), PMA-MW-5M-0212 (680-77019-5), PMA-MW-2M-0212 (680-77019-6), PMA-MW-2M-0212-AD (680-77019-7), PMA-MW-2S-0212 (680-77019-8), PMA-MW-4D-0212 (680-77019-9), PMA-MW-4S-0212 (680-77019-10), PMA-MW-3S-0212 (680-77019-1) and PMA-MW-3M-0212 (680-77019-2) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA Method 680. The samples were prepared on 02/22/2012 and analyzed on 03/08/2012, 03/09/2012 and 03/14/2012.

Nonachlorobiphenyl exceeded the recovery criteria high for LCS 680-229697/14-A. Refer to the QC report for details.

Sample PMA-MW-4S-0212 (680-77019-10)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the PCBs analyses.

All other quality control parameters were within the acceptance limits.

APR 20 2012



## Sample Summary

Client: Solutia Inc.

Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1

SDG: KPM045

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-77019-1	PMA-MW-6D-0212-EB ✓	Water	02/16/12 08:15	02/17/12 09:24
680-77019-2	PMA-MW-6D-0212 ✓	Water	02/16/12 09:50	02/17/12 09:24
680-77019-3	PMA-MW-1M-0212 ✓	Water	02/16/12 09:50	02/17/12 09:24
680-77019-4	PMA-MW-1S-0212 ✓	Water	02/16/12 10:35	02/17/12 09:24
680-77019-5	PMA-MW-5M-0212 ✓	Water	02/16/12 10:40	02/17/12 09:24
680-77019-6	PMA-MW-2M-0212 ✓	Water	02/16/12 13:05	02/17/12 09:24
680-77019-7	PMA-MW-2M-0212-AD ✓	Water	02/16/12 13:05	02/17/12 09:24
680-77019-8	PMA-MW-2S-0212 ✓	Water	02/16/12 13:55	02/17/12 09:24
680-77019-9	PMA-MW-4D-0212 ✓	Water	02/16/12 13:50	02/17/12 09:24
680-77019-10	PMA-MW-4S-0212 ✓	Water	02/16/12 14:40	02/17/12 09:24
680-77050-1	PMA-MW-3S-0212 ✓	Water	02/17/12 10:55	02/18/12 09:44
680-77050-2	PMA-MW-3M-0212 ✓	Water	02/17/12 11:35	02/18/12 09:44

APR 20 2012

EZK



## Method Summary

Client: Solutia Inc.  
Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

Method	Method Description	Protocol	Laboratory
680	Polychlorinated Biphenyls (PCBs) (GC/MS)	EPA	TAL SAV

**Protocol References:**

EPA = US Environmental Protection Agency

**Laboratory References:**

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

APR 20 2012

E2K

US EPA ARCHIVE DOCUMENT

## Definitions/Glossary

Client: Solutia Inc.  
Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

### Qualifiers

#### GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD exceeds the control limits

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

APR 20 2012

EZK

## Detection Summary

Client: Solutia Inc.  
Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

**Client Sample ID: PMA-MW-6D-0212-EB**

**Lab Sample ID: 680-77019-1**

☐ No Detections

**Client Sample ID: PMA-MW-6D-0212**

**Lab Sample ID: 680-77019-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	0.19		0.096		ug/L	1		680	Total/NA

**Client Sample ID: PMA-MW-1M-0212**

**Lab Sample ID: 680-77019-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	0.30		0.096		ug/L	1		680	Total/NA

**Client Sample ID: PMA-MW-1S-0212**

**Lab Sample ID: 680-77019-4**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Hexachlorobiphenyl	0.34		0.19		ug/L	1		680	Total/NA

**Client Sample ID: PMA-MW-5M-0212**

**Lab Sample ID: 680-77019-5**

☐ No Detections

**Client Sample ID: PMA-MW-2M-0212**

**Lab Sample ID: 680-77019-6**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	3.5		0.096		ug/L	1		680	Total/NA

**Client Sample ID: PMA-MW-2M-0212-AD**

**Lab Sample ID: 680-77019-7**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	3.7		0.095		ug/L	1		680	Total/NA

**Client Sample ID: PMA-MW-2S-0212**

**Lab Sample ID: 680-77019-8**

☐ No Detections

**Client Sample ID: PMA-MW-4D-0212**

**Lab Sample ID: 680-77019-9**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	0.40		0.095		ug/L	1		680	Total/NA
Dichlorobiphenyl	0.52		0.095		ug/L	1		680	Total/NA

**Client Sample ID: PMA-MW-4S-0212**

**Lab Sample ID: 680-77019-10**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Monochlorobiphenyl	2.3		0.95		ug/L	10		680	Total/NA
Dichlorobiphenyl	15		0.95		ug/L	10		680	Total/NA
Trichlorobiphenyl	71		0.95		ug/L	10		680	Total/NA
Tetrachlorobiphenyl	150		1.9		ug/L	10		680	Total/NA
Pentachlorobiphenyl	140		1.9		ug/L	10		680	Total/NA
Hexachlorobiphenyl	250		1.9		ug/L	10		680	Total/NA
Heptachlorobiphenyl	230		2.8		ug/L	10		680	Total/NA
Octachlorobiphenyl	38		2.8		ug/L	10		680	Total/NA
Nonachlorobiphenyl	10 *		4.7		ug/L	10		680	Total/NA

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TestAmerica Savannah

## Detection Summary

Client: Solutia Inc.  
Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

Client Sample ID: PMA-MW-3S-0212

Lab Sample ID: 680-77050-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Monochlorobiphenyl	0.72		0.096		ug/L		1		680	Total/NA
Dichlorobiphenyl	0.25		0.096		ug/L		1		680	Total/NA
Trichlorobiphenyl	0.15		0.096		ug/L		1		680	Total/NA

Client Sample ID: PMA-MW-3M-0212

Lab Sample ID: 680-77050-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Monochlorobiphenyl	1.3		0.095		ug/L		1		680	Total/NA

APR 20 2012 EZK

# Client Sample Results

Client: Solutia Inc.  
Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

Client Sample ID: PMA-MW-6D-0212-EB

Lab Sample ID: 680-77019-1

Date Collected: 02/16/12 08:15

Matrix: Water

Date Received: 02/17/12 09:24

## Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.097	U	0.097		ug/L		02/22/12 14:50	03/08/12 20:21	1
Dichlorobiphenyl	0.097	U	0.097		ug/L		02/22/12 14:50	03/08/12 20:21	1
Trichlorobiphenyl	0.097	U	0.097		ug/L		02/22/12 14:50	03/08/12 20:21	1
Tetrachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 20:21	1
Pentachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 20:21	1
Hexachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 20:21	1
Heptachlorobiphenyl	0.29	U	0.29		ug/L		02/22/12 14:50	03/08/12 20:21	1
Octachlorobiphenyl	0.29	U	0.29		ug/L		02/22/12 14:50	03/08/12 20:21	1
Nonachlorobiphenyl	0.49	U *	0.49		ug/L		02/22/12 14:50	03/08/12 20:21	1
DCB Decachlorobiphenyl	0.49	U	0.49		ug/L		02/22/12 14:50	03/08/12 20:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	70		25 - 113				02/22/12 14:50	03/08/12 20:21	1

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EZK

# Client Sample Results

Client: Solutia Inc.  
Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

Client Sample ID: PMA-MW-6D-0212

Lab Sample ID: 680-77019-2

Date Collected: 02/16/12 09:50

Matrix: Water

Date Received: 02/17/12 09:24

## Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.19		0.096		ug/L		02/22/12 14:50	03/08/12 20:52	1
Dichlorobiphenyl	0.096	U	0.096		ug/L		02/22/12 14:50	03/08/12 20:52	1
Trichlorobiphenyl	0.096	U	0.096		ug/L		02/22/12 14:50	03/08/12 20:52	1
Tetrachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 20:52	1
Pentachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 20:52	1
Hexachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 20:52	1
Heptachlorobiphenyl	0.29	U	0.29		ug/L		02/22/12 14:50	03/08/12 20:52	1
Octachlorobiphenyl	0.29	U	0.29		ug/L		02/22/12 14:50	03/08/12 20:52	1
Nonachlorobiphenyl	0.48	U *	0.48		ug/L		02/22/12 14:50	03/08/12 20:52	1
DCB Decachlorobiphenyl	0.48	U	0.48		ug/L		02/22/12 14:50	03/08/12 20:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	69		25 - 113				02/22/12 14:50	03/08/12 20:52	1

APR 20 2012  
ERK



# Client Sample Results

Client: Solutia Inc.  
Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

Client Sample ID: PMA-MW-1M-0212

Lab Sample ID: 680-77019-3

Date Collected: 02/16/12 09:50

Matrix: Water

Date Received: 02/17/12 09:24

## Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.30		0.096		ug/L		02/22/12 14:50	03/08/12 21:22	1
Dichlorobiphenyl	0.096	U	0.096		ug/L		02/22/12 14:50	03/08/12 21:22	1
Trichlorobiphenyl	0.096	U	0.096		ug/L		02/22/12 14:50	03/08/12 21:22	1
Tetrachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 21:22	1
Pentachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 21:22	1
Hexachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 21:22	1
Heptachlorobiphenyl	0.29	U	0.29		ug/L		02/22/12 14:50	03/08/12 21:22	1
Octachlorobiphenyl	0.29	U	0.29		ug/L		02/22/12 14:50	03/08/12 21:22	1
Nonachlorobiphenyl	0.48	U *	0.48		ug/L		02/22/12 14:50	03/08/12 21:22	1
DCB Decachlorobiphenyl	0.48	U	0.48		ug/L		02/22/12 14:50	03/08/12 21:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	49		25 - 113				02/22/12 14:50	03/08/12 21:22	1

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# Client Sample Results

Client: Solutia Inc.  
Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

Client Sample ID: PMA-MW-1S-0212

Lab Sample ID: 680-77019-4

Date Collected: 02/16/12 10:35

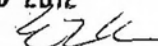
Matrix: Water

Date Received: 02/17/12 09:24

## Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.095	U	0.095		ug/L		02/22/12 14:50	03/08/12 21:51	1
Dichlorobiphenyl	0.095	U	0.095		ug/L		02/22/12 14:50	03/08/12 21:51	1
Trichlorobiphenyl	0.095	U	0.095		ug/L		02/22/12 14:50	03/08/12 21:51	1
Tetrachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 21:51	1
Pentachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 21:51	1
Hexachlorobiphenyl	0.34		0.19		ug/L		02/22/12 14:50	03/08/12 21:51	1
Heptachlorobiphenyl	0.29	U	0.29		ug/L		02/22/12 14:50	03/08/12 21:51	1
Octachlorobiphenyl	0.29	U	0.29		ug/L		02/22/12 14:50	03/08/12 21:51	1
Nonachlorobiphenyl	0.48	U *	0.48		ug/L		02/22/12 14:50	03/08/12 21:51	1
DCB Decachlorobiphenyl	0.48	U	0.48		ug/L		02/22/12 14:50	03/08/12 21:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	71		25 - 113				02/22/12 14:50	03/08/12 21:51	1

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# Client Sample Results

Client: Solutia Inc.  
Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

Client Sample ID: PMA-MW-5M-0212

Lab Sample ID: 680-77019-5

Date Collected: 02/16/12 10:40

Matrix: Water

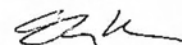
Date Received: 02/17/12 09:24

## Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.095	U	0.095		ug/L		02/22/12 14:50	03/08/12 22:21	1
Dichlorobiphenyl	0.095	U	0.095		ug/L		02/22/12 14:50	03/08/12 22:21	1
Trichlorobiphenyl	0.095	U	0.095		ug/L		02/22/12 14:50	03/08/12 22:21	1
Tetrachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 22:21	1
Pentachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 22:21	1
Hexachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 22:21	1
Heptachlorobiphenyl	0.29	U	0.29		ug/L		02/22/12 14:50	03/08/12 22:21	1
Octachlorobiphenyl	0.29	U	0.29		ug/L		02/22/12 14:50	03/08/12 22:21	1
Nonachlorobiphenyl	0.48	U *	0.48		ug/L		02/22/12 14:50	03/08/12 22:21	1
DCB Decachlorobiphenyl	0.48	U	0.48		ug/L		02/22/12 14:50	03/08/12 22:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	58		25 - 113	02/22/12 14:50	03/08/12 22:21	1

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# Client Sample Results

Client: Solutia Inc.  
Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

Client Sample ID: PMA-MW-2M-0212

Lab Sample ID: 680-77019-6

Date Collected: 02/16/12 13:05

Matrix: Water

Date Received: 02/17/12 09:24

## Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	3.5		0.096		ug/L		02/22/12 14:50	03/08/12 22:51	1
Dichlorobiphenyl	0.096	U	0.096		ug/L		02/22/12 14:50	03/08/12 22:51	1
Trichlorobiphenyl	0.096	U	0.096		ug/L		02/22/12 14:50	03/08/12 22:51	1
Tetrachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 22:51	1
Pentachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 22:51	1
Hexachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 22:51	1
Heptachlorobiphenyl	0.29	U	0.29		ug/L		02/22/12 14:50	03/08/12 22:51	1
Octachlorobiphenyl	0.29	U	0.29		ug/L		02/22/12 14:50	03/08/12 22:51	1
Nonachlorobiphenyl	0.48	U *	0.48		ug/L		02/22/12 14:50	03/08/12 22:51	1
DCB Decachlorobiphenyl	0.48	U	0.48		ug/L		02/22/12 14:50	03/08/12 22:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	54		25 - 113	02/22/12 14:50	03/08/12 22:51	1

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# Client Sample Results

Client: Solutia Inc.

Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1

SDG: KPM045

Client Sample ID: PMA-MW-2M-0212-AD

Lab Sample ID: 680-77019-7

Date Collected: 02/16/12 13:05

Matrix: Water

Date Received: 02/17/12 09:24

## Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	3.7		0.095		ug/L		02/22/12 14:50	03/08/12 23:22	1
Dichlorobiphenyl	0.095	U	0.095		ug/L		02/22/12 14:50	03/08/12 23:22	1
Trichlorobiphenyl	0.095	U	0.095		ug/L		02/22/12 14:50	03/08/12 23:22	1
Tetrachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 23:22	1
Pentachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 23:22	1
Hexachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 23:22	1
Heptachlorobiphenyl	0.29	U	0.29		ug/L		02/22/12 14:50	03/08/12 23:22	1
Octachlorobiphenyl	0.29	U	0.29		ug/L		02/22/12 14:50	03/08/12 23:22	1
Nonachlorobiphenyl	0.48	U *	0.48		ug/L		02/22/12 14:50	03/08/12 23:22	1
DCB Decachlorobiphenyl	0.48	U	0.48		ug/L		02/22/12 14:50	03/08/12 23:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	59		25 - 113	02/22/12 14:50	03/08/12 23:22	1

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# Client Sample Results

Client: Solutia Inc.

Project/Site: W GK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1

SDG: KPM045

Client Sample ID: PMA-MW-2S-0212

Lab Sample ID: 680-77019-8

Date Collected: 02/16/12 13:55

Matrix: Water

Date Received: 02/17/12 09:24

## Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.096	U	0.096		ug/L		02/22/12 14:50	03/08/12 23:52	1
Dichlorobiphenyl	0.096	U	0.096		ug/L		02/22/12 14:50	03/08/12 23:52	1
Trichlorobiphenyl	0.096	U	0.096		ug/L		02/22/12 14:50	03/08/12 23:52	1
Tetrachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 23:52	1
Pentachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 23:52	1
Hexachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/08/12 23:52	1
Heptachlorobiphenyl	0.29	U	0.29		ug/L		02/22/12 14:50	03/08/12 23:52	1
Octachlorobiphenyl	0.29	U	0.29		ug/L		02/22/12 14:50	03/08/12 23:52	1
Nonachlorobiphenyl	0.48	U *	0.48		ug/L		02/22/12 14:50	03/08/12 23:52	1
DCB Decachlorobiphenyl	0.48	U	0.48		ug/L		02/22/12 14:50	03/08/12 23:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	70		25 - 113				02/22/12 14:50	03/08/12 23:52	1

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## Client Sample Results

Client: Solutia Inc.  
Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

Client Sample ID: PMA-MW-4D-0212

Lab Sample ID: 680-77019-9

Date Collected: 02/16/12 13:50

Matrix: Water

Date Received: 02/17/12 09:24

## Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.40		0.095		ug/L		02/22/12 14:50	03/09/12 00:22	1
Dichlorobiphenyl	0.52		0.095		ug/L		02/22/12 14:50	03/09/12 00:22	1
Trichlorobiphenyl	0.095	U	0.095		ug/L		02/22/12 14:50	03/09/12 00:22	1
Tetrachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/09/12 00:22	1
Pentachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/09/12 00:22	1
Hexachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/09/12 00:22	1
Heptachlorobiphenyl	0.28	U	0.28		ug/L		02/22/12 14:50	03/09/12 00:22	1
Octachlorobiphenyl	0.28	U	0.28		ug/L		02/22/12 14:50	03/09/12 00:22	1
Nonachlorobiphenyl	0.47	U *	0.47		ug/L		02/22/12 14:50	03/09/12 00:22	1
DCB Decachlorobiphenyl	0.47	U	0.47		ug/L		02/22/12 14:50	03/09/12 00:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	65		25 - 113				02/22/12 14:50	03/09/12 00:22	1

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ERK

# Client Sample Results

Client: Solutia Inc.  
Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

Client Sample ID: PMA-MW-4S-0212

Lab Sample ID: 680-77019-10

Date Collected: 02/16/12 14:40

Matrix: Water

Date Received: 02/17/12 09:24

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	2.3		0.95		ug/L		02/22/12 14:50	03/14/12 18:59	10
Dichlorobiphenyl	15		0.95		ug/L		02/22/12 14:50	03/14/12 18:59	10
Trichlorobiphenyl	71		0.95		ug/L		02/22/12 14:50	03/14/12 18:59	10
Tetrachlorobiphenyl	150		1.9		ug/L		02/22/12 14:50	03/14/12 18:59	10
Pentachlorobiphenyl	140		1.9		ug/L		02/22/12 14:50	03/14/12 18:59	10
Hexachlorobiphenyl	250		1.9		ug/L		02/22/12 14:50	03/14/12 18:59	10
Heptachlorobiphenyl	230		2.8		ug/L		02/22/12 14:50	03/14/12 18:59	10
Octachlorobiphenyl	38		2.8		ug/L		02/22/12 14:50	03/14/12 18:59	10
Nonachlorobiphenyl	10	J	4.7		ug/L		02/22/12 14:50	03/14/12 18:59	10
DCB Decachlorobiphenyl	4.7	U	4.7		ug/L		02/22/12 14:50	03/14/12 18:59	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	65		25 - 113				02/22/12 14:50	03/14/12 18:59	10

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# Client Sample Results

Client: Solutia Inc.  
Project/Site: W GK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

Client Sample ID: PMA-MW-3S-0212

Lab Sample ID: 680-77050-1

Date Collected: 02/17/12 10:55

Matrix: Water

Date Received: 02/18/12 09:44

## Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.72		0.096		ug/L		02/22/12 14:50	03/14/12 19:59	1
Dichlorobiphenyl	0.25		0.096		ug/L		02/22/12 14:50	03/14/12 19:59	1
Trichlorobiphenyl	0.15		0.096		ug/L		02/22/12 14:50	03/14/12 19:59	1
Tetrachlorobiphenyl	0.19 U		0.19		ug/L		02/22/12 14:50	03/14/12 19:59	1
Pentachlorobiphenyl	0.19 U		0.19		ug/L		02/22/12 14:50	03/14/12 19:59	1
Hexachlorobiphenyl	0.19 U		0.19		ug/L		02/22/12 14:50	03/14/12 19:59	1
Heptachlorobiphenyl	0.29 U		0.29		ug/L		02/22/12 14:50	03/14/12 19:59	1
Octachlorobiphenyl	0.29 U		0.29		ug/L		02/22/12 14:50	03/14/12 19:59	1
Nonachlorobiphenyl	0.48 U *		0.48		ug/L		02/22/12 14:50	03/14/12 19:59	1
DCB Decachlorobiphenyl	0.48 U		0.48		ug/L		02/22/12 14:50	03/14/12 19:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	71		25 - 113	02/22/12 14:50	03/14/12 19:59	1

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# Client Sample Results

Client: Solutia Inc.  
Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

Client Sample ID: PMA-MW-3M-0212

Lab Sample ID: 680-77050-2

Date Collected: 02/17/12 11:35

Matrix: Water

Date Received: 02/18/12 09:44

## Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	1.3		0.095		ug/L		02/22/12 14:50	03/14/12 20:29	1
Dichlorobiphenyl	0.095	U	0.095		ug/L		02/22/12 14:50	03/14/12 20:29	1
Trichlorobiphenyl	0.095	U	0.095		ug/L		02/22/12 14:50	03/14/12 20:29	1
Tetrachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/14/12 20:29	1
Pentachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/14/12 20:29	1
Hexachlorobiphenyl	0.19	U	0.19		ug/L		02/22/12 14:50	03/14/12 20:29	1
Heptachlorobiphenyl	0.28	U	0.28		ug/L		02/22/12 14:50	03/14/12 20:29	1
Octachlorobiphenyl	0.28	U	0.28		ug/L		02/22/12 14:50	03/14/12 20:29	1
Nonachlorobiphenyl	0.47	U *	0.47		ug/L		02/22/12 14:50	03/14/12 20:29	1
DCB Decachlorobiphenyl	0.47	U	0.47		ug/L		02/22/12 14:50	03/14/12 20:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	72		25 - 113				02/22/12 14:50	03/14/12 20:29	1

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## Surrogate Summary

Client: Solutia Inc.  
Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	13DCB (25-113)
680-77019-1	PMA-MW-6D-0212-EB	70
680-77019-2	PMA-MW-6D-0212	69
680-77019-3	PMA-MW-1M-0212	49
680-77019-4	PMA-MW-1S-0212	71
680-77019-4 MS	PMA-MW-1S-0212	64
680-77019-4 MSD	PMA-MW-1S-0212	59
680-77019-5	PMA-MW-5M-0212	58
680-77019-6	PMA-MW-2M-0212	54
680-77019-7	PMA-MW-2M-0212-AD	59
680-77019-8	PMA-MW-2S-0212	70
680-77019-9	PMA-MW-4D-0212	65
680-77019-10	PMA-MW-4S-0212	65
680-77050-1	PMA-MW-3S-0212	71
680-77050-2	PMA-MW-3M-0212	72
LCS 680-229697/14-A	Lab Control Sample	68
MB 680-229697/13-A	Method Blank	72

#### Surrogate Legend

13DCB = Decachlorobiphenyl-13C12

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# QC Sample Results

Client: Solutia Inc.  
Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

## Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS)

Lab Sample ID: MB 680-229697/13-A

Matrix: Water

Analysis Batch: 231599

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 229697

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Monochlorobiphenyl	0.10	U	0.10		ug/L		02/22/12 14:50	03/08/12 19:21	1
Dichlorobiphenyl	0.10	U	0.10		ug/L		02/22/12 14:50	03/08/12 19:21	1
Trichlorobiphenyl	0.10	U	0.10		ug/L		02/22/12 14:50	03/08/12 19:21	1
Tetrachlorobiphenyl	0.20	U	0.20		ug/L		02/22/12 14:50	03/08/12 19:21	1
Pentachlorobiphenyl	0.20	U	0.20		ug/L		02/22/12 14:50	03/08/12 19:21	1
Hexachlorobiphenyl	0.20	U	0.20		ug/L		02/22/12 14:50	03/08/12 19:21	1
Heptachlorobiphenyl	0.30	U	0.30		ug/L		02/22/12 14:50	03/08/12 19:21	1
Octachlorobiphenyl	0.30	U	0.30		ug/L		02/22/12 14:50	03/08/12 19:21	1
Nonachlorobiphenyl	0.50	U	0.50		ug/L		02/22/12 14:50	03/08/12 19:21	1
DCB Decachlorobiphenyl	0.50	U	0.50		ug/L		02/22/12 14:50	03/08/12 19:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Decachlorobiphenyl-13C12	72		25 - 113	02/22/12 14:50	03/08/12 19:21	1

Lab Sample ID: LCS 680-229697/14-A

Matrix: Water

Analysis Batch: 231599

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 229697

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Monochlorobiphenyl	2.00	0.989		ug/L		49	10 - 125
Dichlorobiphenyl	2.00	1.05		ug/L		52	10 - 110
Trichlorobiphenyl	2.00	1.13		ug/L		57	17 - 110
Tetrachlorobiphenyl	4.00	2.25		ug/L		56	18 - 110
Pentachlorobiphenyl	4.00	2.80		ug/L		70	34 - 110
Hexachlorobiphenyl	4.00	2.68		ug/L		67	31 - 110
Heptachlorobiphenyl	6.00	4.24		ug/L		71	33 - 110
Octachlorobiphenyl	6.00	4.32		ug/L		72	33 - 110
Nonachlorobiphenyl	10.0	11.7 *		ug/L		117	26 - 115
DCB Decachlorobiphenyl	10.0	7.20		ug/L		72	26 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Decachlorobiphenyl-13C12	68		25 - 113

Lab Sample ID: 680-77019-4 MS

Matrix: Water

Analysis Batch: 231599

Client Sample ID: PMA-MW-1S-0212

Prep Type: Total/NA

Prep Batch: 229697

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Monochlorobiphenyl	0.095	U	1.91	0.888		ug/L		47	10 - 125
Dichlorobiphenyl	0.095	U	1.91	1.02		ug/L		53	10 - 110
Trichlorobiphenyl	0.095	U	1.91	1.14		ug/L		56	17 - 110
Tetrachlorobiphenyl	0.19	U	3.81	2.16		ug/L		53	18 - 110
Pentachlorobiphenyl	0.19	U	3.81	2.53		ug/L		63	34 - 110
Hexachlorobiphenyl	0.34		3.81	2.43		ug/L		55	31 - 110
Heptachlorobiphenyl	0.29	U	5.72	3.63		ug/L		59	33 - 110
Octachlorobiphenyl	0.29	U	5.72	3.78		ug/L		66	33 - 110
Nonachlorobiphenyl	0.48	U *	9.53	10.2		ug/L		107	26 - 115
DCB Decachlorobiphenyl	0.48	U	9.53	6.53		ug/L		68	26 - 115

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# QC Sample Results

Client: Solutia Inc.  
Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

## Method: 680 - Polychlorinated Biphenyls (PCBs) (GC/MS) (Continued)

Lab Sample ID: 680-77019-4 MS

Matrix: Water

Analysis Batch: 231599

Client Sample ID: PMA-MW-1S-0212

Prep Type: Total/NA

Prep Batch: 229697

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
Decachlorobiphenyl-13C12	64		25 - 113

Lab Sample ID: 680-77019-4 MSD

Matrix: Water

Analysis Batch: 231599

Client Sample ID: PMA-MW-1S-0212

Prep Type: Total/NA

Prep Batch: 229697

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Monochlorobiphenyl	0.095	U	1.90	0.924		ug/L		49	10 - 125	4	40
Dichlorobiphenyl	0.095	U	1.90	1.02		ug/L		53	10 - 110	1	40
Trichlorobiphenyl	0.095	U	1.90	1.09		ug/L		54	17 - 110	4	40
Tetrachlorobiphenyl	0.19	U	3.79	2.12		ug/L		52	18 - 110	2	40
Pentachlorobiphenyl	0.19	U	3.79	2.33		ug/L		58	34 - 110	8	40
Hexachlorobiphenyl	0.34		3.79	2.22		ug/L		50	31 - 110	9	40
Heptachlorobiphenyl	0.29	U	5.69	3.44		ug/L		56	33 - 110	6	40
Octachlorobiphenyl	0.29	U	5.69	3.57		ug/L		63	33 - 110	6	40
Nonachlorobiphenyl	0.48	U *	9.48	9.50		ug/L		100	26 - 115	7	40
DCB Decachlorobiphenyl	0.48	U	9.48	5.93		ug/L		63	26 - 115	10	40

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
Decachlorobiphenyl-13C12	59		25 - 113

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# QC Association Summary

Client: Solutia Inc.  
Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

## GC/MS Semi VOA

### Prep Batch: 229697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-77019-1	PMA-MW-6D-0212-EB	Total/NA	Water	680	
680-77019-2	PMA-MW-6D-0212	Total/NA	Water	680	
680-77019-3	PMA-MW-1M-0212	Total/NA	Water	680	
680-77019-4	PMA-MW-1S-0212	Total/NA	Water	680	
680-77019-4 MS	PMA-MW-1S-0212	Total/NA	Water	680	
680-77019-4 MSD	PMA-MW-1S-0212	Total/NA	Water	680	
680-77019-5	PMA-MW-5M-0212	Total/NA	Water	680	
680-77019-6	PMA-MW-2M-0212	Total/NA	Water	680	
680-77019-7	PMA-MW-2M-0212-AD	Total/NA	Water	680	
680-77019-8	PMA-MW-2S-0212	Total/NA	Water	680	
680-77019-9	PMA-MW-4D-0212	Total/NA	Water	680	
680-77019-10	PMA-MW-4S-0212	Total/NA	Water	680	
680-77050-1	PMA-MW-3S-0212	Total/NA	Water	680	
680-77050-2	PMA-MW-3M-0212	Total/NA	Water	680	
LCS 680-229697/14-A	Lab Control Sample	Total/NA	Water	680	
MB 680-229697/13-A	Method Blank	Total/NA	Water	680	

### Analysis Batch: 231599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-77019-1	PMA-MW-6D-0212-EB	Total/NA	Water	680	229697
680-77019-2	PMA-MW-6D-0212	Total/NA	Water	680	229697
680-77019-3	PMA-MW-1M-0212	Total/NA	Water	680	229697
680-77019-4	PMA-MW-1S-0212	Total/NA	Water	680	229697
680-77019-4 MS	PMA-MW-1S-0212	Total/NA	Water	680	229697
680-77019-4 MSD	PMA-MW-1S-0212	Total/NA	Water	680	229697
680-77019-5	PMA-MW-5M-0212	Total/NA	Water	680	229697
680-77019-6	PMA-MW-2M-0212	Total/NA	Water	680	229697
680-77019-7	PMA-MW-2M-0212-AD	Total/NA	Water	680	229697
680-77019-8	PMA-MW-2S-0212	Total/NA	Water	680	229697
680-77019-9	PMA-MW-4D-0212	Total/NA	Water	680	229697
LCS 680-229697/14-A	Lab Control Sample	Total/NA	Water	680	229697
MB 680-229697/13-A	Method Blank	Total/NA	Water	680	229697

### Analysis Batch: 231618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-77019-10	PMA-MW-4S-0212	Total/NA	Water	680	229697
680-77050-1	PMA-MW-3S-0212	Total/NA	Water	680	229697
680-77050-2	PMA-MW-3M-0212	Total/NA	Water	680	229697

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# Lab Chronicle

Client: Solutia Inc.  
Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

Client Sample ID: PMA-MW-6D-0212-EB

Lab Sample ID: 680-77019-1

Date Collected: 02/16/12 08:15

Matrix: Water

Date Received: 02/17/12 09:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	680			1027.4 mL	1 mL	229697	02/22/12 14:50	RBS	TAL SAV
Total/NA	Analysis	680		1			231599	03/08/12 20:21	ND	TAL SAV

Client Sample ID: PMA-MW-6D-0212

Lab Sample ID: 680-77019-2

Date Collected: 02/16/12 09:50

Matrix: Water

Date Received: 02/17/12 09:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	680			1045.6 mL	1 mL	229697	02/22/12 14:50	RBS	TAL SAV
Total/NA	Analysis	680		1			231599	03/08/12 20:52	ND	TAL SAV

Client Sample ID: PMA-MW-1M-0212

Lab Sample ID: 680-77019-3

Date Collected: 02/16/12 09:50

Matrix: Water

Date Received: 02/17/12 09:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	680			1039.5 mL	1 mL	229697	02/22/12 14:50	RBS	TAL SAV
Total/NA	Analysis	680		1			231599	03/08/12 21:22	ND	TAL SAV

Client Sample ID: PMA-MW-1S-0212

Lab Sample ID: 680-77019-4

Date Collected: 02/16/12 10:35

Matrix: Water

Date Received: 02/17/12 09:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	680			1050.8 mL	1 mL	229697	02/22/12 14:50	RBS	TAL SAV
Total/NA	Analysis	680		1			231599	03/08/12 21:51	ND	TAL SAV

Client Sample ID: PMA-MW-5M-0212

Lab Sample ID: 680-77019-5

Date Collected: 02/16/12 10:40

Matrix: Water

Date Received: 02/17/12 09:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	680			1051.6 mL	1 mL	229697	02/22/12 14:50	RBS	TAL SAV
Total/NA	Analysis	680		1			231599	03/08/12 22:21	ND	TAL SAV

Client Sample ID: PMA-MW-2M-0212

Lab Sample ID: 680-77019-6

Date Collected: 02/16/12 13:05

Matrix: Water

Date Received: 02/17/12 09:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	680			1044.6 mL	1 mL	229697	02/22/12 14:50	RBS	TAL SAV
Total/NA	Analysis	680		1			231599	03/08/12 22:51	ND	TAL SAV

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# Lab Chronicle

Client: Solutia Inc.  
Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

Client Sample ID: PMA-MW-2M-0212-AD

Lab Sample ID: 680-77019-7

Date Collected: 02/16/12 13:05

Matrix: Water

Date Received: 02/17/12 09:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	680			1048.4 mL	1 mL	229697	02/22/12 14:50	RBS	TAL SAV
Total/NA	Analysis	680		1			231599	03/08/12 23:22	ND	TAL SAV

Client Sample ID: PMA-MW-2S-0212

Lab Sample ID: 680-77019-8

Date Collected: 02/16/12 13:55

Matrix: Water

Date Received: 02/17/12 09:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	680			1037.6 mL	1 mL	229697	02/22/12 14:50	RBS	TAL SAV
Total/NA	Analysis	680		1			231599	03/08/12 23:52	ND	TAL SAV

Client Sample ID: PMA-MW-4D-0212

Lab Sample ID: 680-77019-9

Date Collected: 02/16/12 13:50

Matrix: Water

Date Received: 02/17/12 09:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	680			1053.5 mL	1 mL	229697	02/22/12 14:50	RBS	TAL SAV
Total/NA	Analysis	680		1			231599	03/09/12 00:22	ND	TAL SAV

Client Sample ID: PMA-MW-4S-0212

Lab Sample ID: 680-77019-10

Date Collected: 02/16/12 14:40

Matrix: Water

Date Received: 02/17/12 09:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	680			1054.8 mL	1 mL	229697	02/22/12 14:50	RBS	TAL SAV
Total/NA	Analysis	680		10			231618	03/14/12 18:59	ND	TAL SAV

Client Sample ID: PMA-MW-3S-0212

Lab Sample ID: 680-77050-1

Date Collected: 02/17/12 10:55

Matrix: Water

Date Received: 02/18/12 09:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	680			1039.8 mL	1 mL	229697	02/22/12 14:50	RBS	TAL SAV
Total/NA	Analysis	680		1			231618	03/14/12 19:59	ND	TAL SAV

Client Sample ID: PMA-MW-3M-0212

Lab Sample ID: 680-77050-2

Date Collected: 02/17/12 11:35

Matrix: Water

Date Received: 02/18/12 09:44

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	680			1054.3 mL	1 mL	229697	02/22/12 14:50	RBS	TAL SAV
Total/NA	Analysis	680		1			231618	03/14/12 20:29	ND	TAL SAV

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## Lab Chronicle

Client: Solutia Inc.

Project/Site: WGK PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1

SDG: KPM045

### Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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*22K*

## Savannah

5102 LaRoche Avenue

Savannah, GA 31404

phone 912.354.7858 fax 912.352.0165

## Chain of Custody Record

TestAmerica  
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

<b>Client Contact</b>		<b>Project Manager: Dave Palmer</b>		<b>Site Contact: Michael Corbett</b>		<b>Date: 2/16/12</b>		<b>COC No:</b>	
URS Corporation		Tel/Fax: (314) 743-4154		Lab Contact: Lidya Gulizia		Carrier: <u>FEDEX</u>		1 of 1 COCs	
1001 Highlands Plaza Drive West, Suite 300		<b>Analysis Turnaround Time</b>						Job No.	
St. Louis, MO 63110		Calendar (C) or Work Days (W)						21562682.00006	
(314) 429-0100 Phone		TAT if different from Below						SDG No.	
(314) 429-0462 FAX		<input checked="" type="checkbox"/> 2 weeks							
Project Name: 1Q12 PCB GW Sampling		<input type="checkbox"/> 1 week							
Site: Solutia WG Krummrich Facility		<input type="checkbox"/> 2 days							
P O #		<input type="checkbox"/> 1 day							
<b>Sample Identification</b>		<b>Sample Date</b>	<b>Sample Time</b>	<b>Sample Type</b>	<b>Matrix</b>	<b># of Cont.</b>	<b>Filtered Sample</b>	<b>Total PCBs by 680</b>	<b>Sample Specific Notes:</b>
PMA-MW-6D-0212-EB	2/16/12	0815	G	Water	2	2			
PMA-MW-6D-0212		0950	G	Water	2	2			
PMA-MW-1M-0212		0950	G	Water	2	2			
PMA-MW-1S-0212		1035	G	Water	2	2			
PMA-MW-1S-0212-MS		1035	G	Water	2	2			
PMA-MW-1S-0212-MSD		1035	G	Water	2	2			
PMA-MW-5M-0212		1040	G	Water	2	2			
PMA-MW-2M-0212		1305	G	Water	2	2			
PMA-MW-2M-0212-AD		1305	G	Water	2	2			
PMA-MW-2S-0212		1355	G	Water	2	2			
PMA-MW-4D-0212		1350	G	Water	2	2			
PMA-MW-4S-0212	✓	1440	G	Water	2	2			
<b>Preservation Used: 1=Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6=Other</b>							1		
<b>Possible Hazard Identification</b>							<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b>		
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/>							<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		
<b>Special Instructions/QC Requirements &amp; Comments: Level 3 Data Package</b>									
680 - 77019 4.6" / 5.0" / 3.0"									
Relinquished by: <u>[Signature]</u>	Company: URS	Date/Time: 2/16/12 1545	Received by: <u>[Signature]</u>	Company: TA	Date/Time: 2/16/12 1545				
Relinquished by: <u>[Signature]</u>	Company: TA	Date/Time: 2/16/12 1545	Received by: <u>[Signature]</u>	Company: TA	Date/Time: 2/17/12 0924				
Relinquished by: <u>[Signature]</u>	Company: TA	Date/Time: 2/16/12 1545	Received by: <u>[Signature]</u>	Company: TA	Date/Time: 2/17/12 0924				

APR 20 2012 EEK

Savannah, GA 31404  
phone 912.354.7858 fax 912.352.0165

**TestAmerica**  
 THE LEADER IN PROFESSIONAL TESTING

TestAmerica Laboratories, Inc.

[illegible]

APR 20 2012 *ΣΣ*

## Login Sample Receipt Checklist

Client: Solutia Inc.

Job Number: 680-77019-1

SDG Number: KPM045

Login Number: 77019

List Source: TestAmerica Savannah

List Number: 1

Creator: Barnett, Eddie T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6, 5.0, 3.0 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APR 20 2012



## Login Sample Receipt Checklist

Client: Solutia Inc.

Job Number: 680-77019-1

SDG Number: KPM045

Login Number: 77050

List Source: TestAmerica Savannah

List Number: 1

Creator: Barnett, Eddie T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.4 and 2.6 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	Insufficient volume received for MS/MSD.
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APR 20 2012 



# Certification Summary

Client: Solutia Inc.  
Project/Site: WGG PCB GW - 1Q12 - Feb 2012

TestAmerica Job ID: 680-77019-1  
SDG: KPM045

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Savannah	A2LA	DoD ELAP		0399-01
TestAmerica Savannah	A2LA	ISO/IEC 17025		399.01
TestAmerica Savannah	Alabama	State Program	4	41450
TestAmerica Savannah	Arkansas	State Program	6	N/A
TestAmerica Savannah	Arkansas DEQ	State Program	6	88-0692
TestAmerica Savannah	California	NELAC	9	3217CA
TestAmerica Savannah	Colorado	State Program	8	N/A
TestAmerica Savannah	Connecticut	State Program	1	PH-0161
TestAmerica Savannah	Florida	NELAC	4	E87052
TestAmerica Savannah	GA Dept. of Agriculture	State Program	4	N/A
TestAmerica Savannah	Georgia	State Program	4	803
TestAmerica Savannah	Georgia	State Program	4	N/A
TestAmerica Savannah	Guam	State Program	9	09-005r
TestAmerica Savannah	Hawaii	State Program	9	N/A
TestAmerica Savannah	Illinois	NELAC	5	200022
TestAmerica Savannah	Indiana	State Program	5	N/A
TestAmerica Savannah	Iowa	State Program	7	353
TestAmerica Savannah	Kentucky	State Program	4	90084
TestAmerica Savannah	Kentucky (UST)	State Program	4	18
TestAmerica Savannah	Louisiana	NELAC	6	30690
TestAmerica Savannah	Louisiana	NELAC	6	LA100015
TestAmerica Savannah	Maine	State Program	1	GA00006
TestAmerica Savannah	Maryland	State Program	3	250
TestAmerica Savannah	Massachusetts	State Program	1	M-GA006
TestAmerica Savannah	Michigan	State Program	5	9925
TestAmerica Savannah	Mississippi	State Program	4	N/A
TestAmerica Savannah	Montana	State Program	8	CERT0081
TestAmerica Savannah	Nebraska	State Program	7	TestAmerica-Savannah
TestAmerica Savannah	New Jersey	NELAC	2	GA769
TestAmerica Savannah	New Mexico	State Program	6	N/A
TestAmerica Savannah	New York	NELAC	2	10842
TestAmerica Savannah	North Carolina DENR	State Program	4	269
TestAmerica Savannah	North Carolina DHHS	State Program	4	13701
TestAmerica Savannah	Oklahoma	State Program	6	9984
TestAmerica Savannah	Pennsylvania	NELAC	3	68-00474
TestAmerica Savannah	Puerto Rico	State Program	2	GA00006
TestAmerica Savannah	Rhode Island	State Program	1	LAO00244
TestAmerica Savannah	South Carolina	State Program	4	98001
TestAmerica Savannah	Tennessee	State Program	4	TN02961
TestAmerica Savannah	Texas	NELAC	6	T104704185-08-TX
TestAmerica Savannah	USDA	Federal		SAV 3-04
TestAmerica Savannah	Vermont	State Program	1	87052
TestAmerica Savannah	Virginia	NELAC	3	460161
TestAmerica Savannah	Washington	State Program	10	C1794
TestAmerica Savannah	West Virginia	State Program	3	9950C
TestAmerica Savannah	West Virginia DEP	State Program	3	94
TestAmerica Savannah	Wisconsin	State Program	5	999819810
TestAmerica Savannah	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

APR 20 2012

*Signature*

TestAmerica Savannah